



PB98-154271

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF PIPELINE AND PRODUCER REGULATION
STAFF REPORT

COST OF
PIPELINE AND COMPRESSOR STATION CONSTRUCTION
UNDER NON-BUDGET PIPELINE CERTIFICATE AUTHORIZATION
FOR THE YEARS 1977 THROUGH 1980

Prepared by: Ronald A. Colter
Division of Technical Review
and Analysis
Federal Energy Regulatory Commission

WASHINGTON, D.C.

GENERAL PIPELINE REGULATORY COMMISSION

OFFICE OF PIPELINE AND PRODUCTION REGULATION

STATE REPORT

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Division of Legislative Review
July 1981
Federal Energy Regulatory Commission

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REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1201 Jefferson D St., SW, Washington, DC 20503.



PB98-154271

2. REPORT DATE

3. REPORT TYPE AND DATES COVERED

Staff Report/1977 Through 1980

4. TITLE AND SUBTITLE

**Cost of Pipeline and Compressor Station Construction
Under Non-Budget Pipeline Certificate Authorization
for the Years 1977 Through 1980**

6. AUTHOR(S)

5. FUNDING NUMBERS

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

**8. PERFORMING ORGANIZATION
REPORT NUMBER**

**Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426**

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

**10. SPONSORING/MONITORING
AGENCY REPORT NUMBER**

SAME

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION / AVAILABILITY STATEMENT

**No restriction on distribution
Available from National Technical Information
Service, Springfield, VA 22161**

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

This report shows the cost of constructing jurisdictional interstate natural gas pipeline and compression facilities. It summarizes and compares reported costs identified by the year in which construction ended for the period 1977 through 1980. The report presents comparative cost and physical data for pipeline and compressor station construction. Also presented are project-by-project listings of cost and physical data that were reported to the Commission from September 15, 1980, through September 30, 1981.

14. SUBJECT TERMS

**Natural Gas, Natural Gas Pipelines,
Natural Gas Pipeline Construction Costs,
Natural Gas Compression Facilities Costs**

15. NUMBER OF PAGES

186

16. PRICE CODE

**17. SECURITY CLASSIFICATION
OF REPORT**

**18. SECURITY CLASSIFICATION
OF THIS PAGE**

**19. SECURITY CLASSIFICATION
OF ABSTRACT**

20. LIMITATION OF ABSTRACT

Unclassified

Unclassified

Unclassified

Unlimited

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Cost of Pipeline and Compressor Station
Construction Under Non-Budget Pipeline
Certificate Authorization
For the Years 1977 Through 1980

Introduction

This annual report shows the cost of constructing jurisdictional interstate gas pipeline and compression facilities. It summarizes and compares reported costs identified by the year in which construction ended for the period 1977 through 1980. The cost data used to compile the statistics are obtained from actual pipeline and compressor construction cost reports filed through September 30, 1981, pursuant to 18 CFR 157.20(c)(4). The data reported are for completed facilities authorized under permanent certificates issued by the Commission.

This report does not include data from budget-type certificates. The report also does not include data on liquefied natural gas (LNG) projects and small construction projects such as taps, meters, and regulators.

The report is divided into two parts. Part I, beginning at page 28, presents comparative cost and physical data for pipeline and compressor construction for the years 1977 through 1980. Part II, beginning at page 117, is a project-by-project listing of cost and physical data that were filed with the Commission from September 15, 1980, through September 30, 1981.

The Tables which appear at pages 8 through 25 provide a convenient summary of the 1977-1980 data plus any changes in 1976 depicted in Parts I and II. It should be noted that the data prior to 1978 in these tables exclude pipeline under 3 miles, whereas the 1978 through 1980 data include pipelines 3 miles and over, under 3 miles, and in total. Thus, the comparative tables on pages 8 and 9 provide footnote data with which the reader can adjust the 1978 through 1980 pipeline data for comparison to the data prior to 1978.

The appearance of 1976 data in the Summary Tables, Part I, and in Part II signify a project completed in 1976 that was not reported until after last year's report cutoff date of September 12, 1980, and therefore not included in that report. To obtain the current 1976 data, the user must combine any new tables (they supersede the prior report's corresponding tables) with the unchanged tables presented in last year's cost report.

Highlights

The Summary Tables presented at pages 8 and 9 show that the total expenditures for 1978 of \$892.5 million, and total number of projects, 130, were the most of any year of construction. Total expenditures for 1980 of \$504.3 million were \$388.2 million less than 1978, even though 1980 completed projects were only 9 fewer. Due to the fact that not enough time has elapsed for the reporting of all 1980 construction, the number of pipeline and compressor projects completed in 1980, with a total of 121 reported to date, may eventually surpass 1978. Total expenditures in 1977 and 1979 were \$247.4 million (42 projects) and \$350.1 million (112 projects), respectively.

Total pipeline expenditures for 1978 were the highest of any year, \$660.9 million. This expenditure almost equaled the combined \$696.3 million spent in 1979 and 1980 (\$303.1 million and \$393.2 million, respectively). Total pipeline expenditures for 1977 were \$211.2 million. Offshore expenditures for 1978 of \$559.3 million equaled the combined total of the other three years of construction; \$163.4 million in 1977, \$193.0 million in 1979, and \$203.6 million in 1980. The \$189.6 million expenditure for onshore pipeline constructed in 1980 was the highest amount spent of any year. Onshore construction in the three previous years was: 1977, \$47.8 million; 1978, \$101.5 million; and 1979, \$110.2 million. More total pipeline mileage, 1,196 miles, was completed in 1978 than in any other year. Offshore mileage of 572 miles for 1978 was almost as much as the combined offshore mileage for 1979 and 1980, 578 miles (291 miles and 287 miles, respectively). The largest amount of onshore pipeline was 745 miles, completed in 1980.

Total compressor expenditures in 1978 of \$231.7 million were more than the combined total expenditures for 1977, 1979, and 1980 of \$36.3 million, \$47.0 million, and \$111.1 million, respectively. Offshore expenditures in 1978 of \$148.8 million were more than eight times the total amount spent during the other three years (1977-\$8.6 million, 1979-\$5.7 million, 1980-\$2.9 million). However, 1980 accounted for the highest onshore expenditures, \$108.2 million, far exceeding those of the other three years--1977, \$27.6 million; 1978, \$82.9 million; and 1979, \$41.4 million. Total compressor horsepower for 1978, 189 thousand, was higher than the combined total of 58 thousand in 1979 and 111 thousand in 1980. Moreover, more onshore horsepower, 120 thousand, and more offshore horsepower, 69 thousand, were constructed than in any other year.

A review of Part I shows that, for pipeline projects 3 miles and over, twenty-four inch transmission pipe, with 112 miles reported, at a total cost of \$38.6 million (\$345 thousand per mile), was used more than any other diameter for pipeline projects completed in 1980.*

Thirty-six inch transmission pipe, with 87 miles reported, at a total cost of \$48.4 million (\$555 thousand per mile), was used more than any other diameter for pipeline projects completed in 1979. Thirty inch offshore pipe, with 190 miles reported, at a total cost of \$159.2 million (\$837 thousand per mile), was used more than any other diameter for pipeline projects completed in 1978. Sixteen inch lateral pipe, with 126 miles reported, at a total cost of \$9.4 million (\$75 thousand per mile), was used more than any other diameter for pipeline projects completed in 1977.

* To determine the pipeline diameter most widely used in a given year, two guidelines are followed. First, no pipeline segments from the "mixed diameter" tables are included. Second, pipeline segments of other diameters which were included with the predominant diameter pipeline in any multiple diameter project are excluded.

Additions to existing transmission compressors with turbine-driven engines were the most widely used type of compression constructed in 1980. There were 9 units added, totaling 25.1 thousand horsepower, at a total cost of \$12.7 million (\$507 per horsepower). Additions to existing field compressors with reciprocating engines were the most widely used type of compression constructed in 1979. There were 17 units added, totaling 32.9 thousand horsepower, at a total cost of \$22.8 million (\$695 per horsepower). New offshore compressor stations with turbine-driven engines were the most widely used type of compression constructed in 1978. There were 3 new units, totaling 46.1 thousand horsepower, at a total cost of \$96.8 million (\$2,100 per horsepower). New transmission compressors with turbine-driven engines were the most widely used type of compression constructed in 1977. There was one new unit, totaling 27.6 thousand horsepower, at a total cost of \$11 million (\$401 per horsepower).

Due to some additional construction reported completed in 1976, additions to existing field compressors with reciprocating engines, the most widely used in that year in the previous report, were increased to 21 units added, totaling 21.7 thousand horsepower, at a total cost of \$12.4 million (\$571 per horsepower).

Tables J-1, J-2, and J-3 of Part II list the individual pipeline projects, states traversed, and costs for the year 1977 through 1980 plus any changes for 1976. For pipeline 3 miles and over, these tables show that the longest pipeline project constructed in 1980 was 88 miles of lateral pipeline in Colorado consisting of 12 miles of twelve inch, 7 miles of eight inch, 7 miles of six inch, 62 miles of four inch, and one-fifth mile of three inch pipeline, constructed by Panhandle Eastern Pipe Line Company, at a cost of \$6.2 million (\$70 thousand per mile). The most expensive project in terms of total cost in 1980 was \$35.4 million (\$1.16 million per mile) for Tennessee Gas Pipeline Company's 31 miles of thirty inch offshore Louisiana pipeline. The highest average cost per mile for a pipeline project 3 miles or longer was for one built by Natural Gas Pipeline Company of America, Michigan Wisconsin Pipe Line Company, Transcontinental Gas Pipe Line Corporation, and United Gas Pipe Line Company, at \$1.32 million per mile that encompassed 8 miles of twenty inch offshore Texas pipeline at a total cost of \$10.7 million.

The longest pipeline project constructed in 1979 was 50 miles of twelve inch lateral pipeline in New Mexico by Northern Natural Gas Company, at a cost of \$4.9 million (\$97 thousand per mile). The most expensive project in terms of total cost in 1979 was \$23.3 million (\$1.09 million per mile) for Tennessee Gas Pipeline Company's 21 miles of thirty inch offshore Louisiana pipeline. The highest average cost per mile for any 1979 pipeline project 3 miles and over was \$1.12 million, constructed by Transcontinental Gas Pipe Line Corporation, encompassing 18 miles of twenty-four inch offshore Louisiana pipeline at a total cost of \$20.3 million.

The longest pipeline project constructed in 1978 was 128 miles of four inch lateral pipeline in Montana by Kansas-Nebraska Natural Gas Company, Inc., at a cost of \$3.1 million (\$24 thousand per mile). The most expensive project in terms of total cost in 1978 was \$109.9 million (\$1.67 million per mile) for High Island Offshore System's 66 miles of forty-two inch offshore Texas and Louisiana pipeline. The highest average cost per mile for any 1978 pipeline project 3 miles and over was \$1.73 million, constructed by Tennessee Gas Pipeline Company, encompassing 7 miles of thirty inch offshore Louisiana pipeline at a total cost of \$11.7 million.

The longest pipeline project constructed in 1977 was 114 miles of sixteen inch lateral pipeline in Wyoming by Colorado Interstate Gas Company, at a cost of \$8.3 million (\$73 thousand per mile). The most expensive project in terms of total cost in 1977 was \$37.2 million (\$914 thousand per mile) for Tennessee Gas Pipeline Company and Columbia Gulf Transmission Company's 41 miles of thirty-six inch offshore Louisiana pipeline. The highest average cost per mile for any 1977 project 3 miles and over was \$990 thousand, constructed by Michigan Wisconsin Pipe Line Company, encompassing 6 miles of forty-two inch transmission pipeline in Indiana at a total cost of \$6.3 million.

Tables Series K through N of Part II provide a cost breakdown of the individual compressor projects for the years 1977-1980 for reports filed with the Commission from September 15, 1980, through September 30, 1981. These tables show that the highest total horsepower project constructed in 1980 occurred at ANR Storage Company's Cold Springs 12 Storage Field in Michigan, a new 12,000 horsepower, one-unit storage compressor with a reciprocating engine. This project also had the highest total cost, \$18.2 million (\$1,514 per horsepower). The most expensive 1980 compression project per horsepower was constructed by ANR Storage Company at their Rapid River 35 Storage Field in Michigan. The new 7,500 horsepower, one-unit storage compressor with a reciprocating engine cost \$1,993 per horsepower (total cost was \$15 million).

The highest total horsepower project constructed in 1979 occurred in Texas at Natural Gas Pipeline Company of America's Compressor Station 343. This was a 7,250 horsepower, one-unit addition to an already existing field compressor with a reciprocating engine. This project also had the highest total cost, \$4.3 million (\$598 per horsepower). The highest average cost per horsepower for 1979 was a Michigan Wisconsin Pipe Line Company new 1,000 horsepower, one-unit compressor with a reciprocating engine. The station, located on Block 137, South Marsh Island offshore Louisiana, cost \$4,191 per horsepower (total cost was \$4.2 million).

High Island Offshore System constructed the highest total horsepower project as well as the most expensive in 1978. The new, three-unit compressor with turbine-driven centrifugal engines, located on High Island Block 264 Compressor Complex, offshore Texas, was rated at 46,100 horsepower and cost \$96.8 million (\$2,099 per horsepower). The project with the highest average cost per horsepower for 1978 was constructed by Columbia Gulf Transmission Company and Tennessee Gas Pipeline Company. This was a 4,000 horsepower, one-unit addition to an existing compressor with a turbine-driven centrifugal engine, located on Vermilion Block 245, offshore Louisiana. The average cost per horsepower for this project was \$8,495 (total cost was \$34 million).

Texas Eastern Transmission Corporation constructed the highest total horsepower and the most expensive project in 1977. This was a new, 27,500 horsepower, one-unit transmission compressor with a turbine-driven centrifugal engine, built in Louisiana. The Grand Chenier Compressor Station cost \$11 million (\$401 per horsepower). The highest average cost per horsepower for 1977 was a new one-unit, 2,000 horsepower transmission compressor with a reciprocating engine built by Transcontinental Gas Pipe Line Corporation at Compressor Station Number 61, located in Louisiana, costing \$1,018 per horsepower (total cost was \$2 million).

Construction completed in 1976 that was reported between September 15, 1980, and September 30, 1981, resulted in a change in the highest total horsepower project from what was reflected in last year's report. This project was a one-unit, 12,000 horsepower addition to an existing field compressor with a turbine-driven centrifugal engine, constructed in Oklahoma. The Laverne Station compressor cost \$5.1 million (\$427 per horsepower).

Methodology

Pipeline construction data depicted in Part I have been categorized by type of pipeline and diameter. The 1978 through 1980 data are also aggregated by pipeline three miles and over and pipeline under three miles. This dichotomy in data presentation is a temporary necessity for comparison purposes because pipelines under three miles were excluded from compilation prior to 1978. There are two types of pipeline: onshore and offshore. Onshore pipeline will be either transmission or lateral line. For purposes of this report, transmission pipeline consists of main or trunk line pipe. Lateral pipeline consists of field or gathering line pipe that branches off the main pipeline. Unless onshore pipeline type has been specified by the certificate holder, the designations are determined by staff based on information in the certificate application and cost report.

Multiple diameter pipeline cost reports usually show only total cost for the entire project. In most cases, the mileages of the components are reported, but in no cases are the individual costs provided. In order to deal with this reporting problem, the following methodology was applied in compiling information for this annual report. If a single pipeline diameter accounted for at least sixty-five percent of the total mileage of the project, then the total cost and mileage were classified under that pipeline diameter, and an accompanying footnote was provided giving the component mileages. In a situation where no diameter made up at least sixty-five percent, the project was classified as a mixed diameter project. Details of mixed diameter pipeline projects are presented in Table J-3 of Part II, and are also included in the Summary Tables.

Compressor construction data presented in Part I have been categorized by type of station and engine. The compressor station is either a new one or an addition to an existing station, and is further classified as being a transmission, field, storage (all these are onshore types of compressors), or an offshore station (no categories; referred to only as offshore). The type of engine may be reciprocating, turbine, or electric motor driven.

Each pipeline construction project reported in Part II indicates the diameter of the pipe in inches, the miles constructed, the states traversed, the total cost, the average cost per mile, and the year in which construction was completed. These data make it possible to analyze states individually or combine them into geographical areas.

Each compressor construction project reported in Part II indicates the name of the compressor station, its location, the horsepower per unit, the number of units, total horsepower, the year construction ended, a cost breakdown, total cost, and the average cost per horsepower.

Construction costs of pipelines are the costs of materials; labor; right-of-way and damages; engineering, inspection, supervision, and surveys; and miscellaneous items including interest during construction, overhead, and other costs such as contingencies, franchises, and consents. Construction costs of compressor stations are the costs of materials; labor; engineering, inspection, supervision, and surveys; and miscellaneous items including interest during construction, overhead, and other costs such as land, right-of-way and damages, and contingencies.

There were four revisions to data included in last year's report that were incorporated into the new 1980 Construction Cost Report. The 1.07 miles of four inch transmission pipeline constructed in Tennessee, reported by Texas Gas Transmission Corporation in Docket No. CP79-220, completed in 1979, was transferred to lateral pipeline.

The 1,000 horsepower addition to a field compressor station with a reciprocating unit constructed in Ohio, reported by Michigan Wisconsin Pipe Line Company in Docket No. CP78-402, completed in 1979, was transferred to an addition to a transmission compressor station. The 53.70 miles of twenty inch transmission pipeline constructed in Texas, reported by El Paso Natural Gas Company in Docket No. CP78-383, completed in 1978, was transferred to lateral pipeline. The new 3,830 horsepower transmission compressor station with a turbine engine constructed in Texas, reported by El Paso Natural Gas Company in Docket No. CP78-383, completed in 1978, was transferred to an addition to a field compressor station. These changes are included in 1978 and 1979 Part I data and summary tables.

PIPELINE AND COMPRESSION CONSTRUCTION
AND EXPENDITURES

YEAR CONSTRUCTION ENDED	TOTAL MILES	ONSHORE MILES	OFFSHORE MILES	TOTAL HORSEPOWER	TOTAL EXPENDITURES
1976	623.52	469.06	154.46	88,574	\$229,879,348
1977	547.29	268.17	279.12	78,190	247,435,053
1978 <u>1/</u>	1,195.89	623.61	572.28	189,492	892,533,780
1979 <u>2/</u>	661.71	370.22	291.49	57,988	350,139,821
1980 <u>3/</u>	1,031.67	744.91	286.76	111,468	504,270,342

NOTE: PIPELINE PROJECTS COMPLETED IN 1976 AND 1977 EXCLUDE
PIPELINE UNDER 3 MILES IN LENGTH.

- 1/ INCLUDES 43.19 MILES (17.34 ONSHORE AND 25.85 OFFSHORE)
CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A TOTAL COST OF
\$65,331,797.
- 2/ INCLUDES 39.15 MILES (28.76 ONSHORE AND 10.39 OFFSHORE) CON-
STRUCTED UNDER 3 MILES IN LENGTH, AT A TOTAL COST OF
\$22,210,701.
- 3/ INCLUDES 32.95 MILES (21.06 ONSHORE AND 11.89 OFFSHORE)
CONSTRUCTED UNDER 3 MILES IN LENGTH, AT A TOTAL COST
OF \$25,770,597.

SUMMARY: NUMBER OF CONSTRUCTION PROJECTS
COMPLETED BY YEAR

	<u>1976*</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
ONSHORE:					
PIPELINE 1/	39	17	48	57	56
COMPRESSION	31	7	23	21	35
<u>TOTAL ONSHORE</u>	70	24	71	78	91
OFFSHORE:					
PIPELINE 2/	13	14	51	32	28
COMPRESSION	3	4	8	2	2
<u>TOTAL OFFSHORE</u>	16	18	59	34	30
<u>TOTAL NUMBER OF PROJECTS</u>	86	42	130	112	121

NUMBER OF PIPELINE COMPANIES REPORTING CONSTRUCTION COMPLETED	20	19	29	27	30
NUMBER OF DOCKETS REPORTED	37	32	73	67	63

* REVISED 1976 FIGURES; SEE METHODOLOGY SECTION FOR EXPLANATION

- 1/ PIPELINE PROJECTS COMPLETED IN 1976 AND 1977 EXCLUDE PIPELINE UNDER 3 MILES IN LENGTH. PIPELINE COMPLETED IN 1978 INCLUDES 16 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 11 PIPELINES IN 15 DOCKETS. PIPELINE COMPLETED IN 1979 INCLUDES 26 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 13 PIPELINES IN 17 DOCKETS. PIPELINE COMPLETED IN 1980 INCLUDES 20 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 12 PIPELINES IN 14 DOCKETS.
- 2/ PIPELINE PROJECTS COMPLETED IN 1976 AND 1977 EXCLUDE PIPELINE UNDER 3 MILES IN LENGTH. PIPELINE COMPLETED IN 1978 INCLUDES 17 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 13 PIPELINES IN 10 DOCKETS. PIPELINE COMPLETED IN 1979 INCLUDES 7 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 6 PIPELINES IN 6 DOCKETS. PIPELINE COMPLETED IN 1980 INCLUDES 10 PROJECTS UNDER 3 MILES IN LENGTH REPORTED BY 7 PIPELINES IN 7 DOCKETS.

SUMMARY: PIPELINE CONSTRUCTION
 ENDING IN 1976
 EXCLUDES PIPELINE UNDER 3 MILES

<u>PIPELINE</u>	<u>MILES</u>	<u>PERCENTAGE OF TOTAL MILES</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER MILE</u>	<u>NUMBER OF PROJECTS</u>
TRANSMISSION	166.18	26.6%	\$ 38,724,109	22.1%	\$ 233,025	10
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	166.18	26.6	38,724,109	22.1	233,025	10
LATERAL	243.64	39.1	21,712,630	12.4	89,118	22
LATERAL: MIXED DIAMETER	59.24	9.5	5,820,782	3.3	98,258	7
TOTAL LATERAL	302.88	48.6	27,533,412	15.7	90,905	29
<u>TOTAL ONSHORE LINES</u>	<u>469.06</u>	<u>75.2</u>	<u>66,257,521</u>	<u>37.8</u>	<u>141,256</u>	<u>39</u>
OFFSHORE LINES	154.46	24.8	108,897,491	62.2	705,021	13
<u>TOTAL LINES</u>	<u>623.52</u>	<u>100.0%</u>	<u>\$175,155,012</u>	<u>100.0%</u>	<u>\$ 280,913</u>	<u>52</u>

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1977
EXCLUDES PIPELINE UNDER 3 MILES

<u>PIPELINE</u>	<u>MILES</u>	<u>PERCENTAGE OF TOTAL MILES</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER MILE</u>	<u>NUMBER OF PROJECTS</u>
TRANSMISSION	45.81	8.4%	\$ 25,100,847	11.9%	\$ 547,934	4
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	45.81	8.4	25,100,847	11.9	547,934	4
LATERAL	194.26	35.5	18,261,577	8.6	94,006	10
LATERAL: MIXED DIAMETER	28.10	5.1	4,409,232	2.1	156,912	3
TOTAL LATERAL	222.36	40.6	22,670,809	10.7	101,955	13
<u>TOTAL ONSHORE LINES</u>	<u>268.17</u>	<u>49.0</u>	<u>47,771,656</u>	<u>22.6</u>	<u>178,139</u>	<u>17</u>
<u>OFFSHORE LINES</u>	<u>279.12</u>	<u>51.0</u>	<u>163,404,339</u>	<u>77.4</u>	<u>585,427</u>	<u>14</u>
<u>TOTAL LINES</u>	<u>547.29</u>	<u>100.0%</u>	<u>\$211,175,995</u>	<u>100.0%</u>	<u>\$ 385,858</u>	<u>31</u>

SUMMARY : PIPELINE CONSTRUCTION
ENDING IN 1978

<u>Pipeline</u>	<u>Miles</u>	<u>Percentage of Total Miles</u>	<u>Cost</u>	<u>Percentage of Total Cost</u>	<u>Average Cost per Mile</u>	<u>Number of Projects</u>
TRANSMISSION	185.25	15.5%	\$ 46,953,177	7.1%	\$ 253,458	12
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	185.25	15.5	46,953,177	7.1	253,458	12
LATERAL	393.50	32.9	45,273,633	6.9	115,054	27
LATERAL: MIXED DIAMETER	44.86	3.8	9,319,332	1.4	207,743	9
TOTAL LATERAL	438.36	36.7	54,592,965	8.3	124,539	36
TOTAL ONSHORE LINES	623.61	52.2	101,546,142	15.4	162,836	48
OFFSHORE LINES	572.28	47.8	559,337,159	84.6	977,384	51
<u>TOTAL LINES</u>	<u>1,195.89</u>	<u>100.0%</u>	<u>\$660,883,301</u>	<u>100.0%</u>	<u>\$ 552,629</u>	<u>99</u>

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1978
3 MILES AND OVER

<u>PIPELINE</u>	<u>MILES</u>	<u>PERCENTAGE OF TOTAL MILES</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER MILE</u>	<u>NUMBER OF PROJECTS</u>
TRANSMISSION	183.70	15.9%	\$ 46,472,690	7.8%	\$ 252,981	10
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	183.70	15.9	46,472,690	7.8	252,981	10
LATERAL	380.33	33.0	43,995,017	7.4	115,676	16
LATERAL: MIXED DIAMETER	42.24	3.7	8,707,173	1.4	206,136	6
TOTAL LATERAL	422.57	36.7	52,702,190	8.8	124,718	22
<u>TOTAL ONSHORE LINES</u>	<u>606.27</u>	<u>52.6</u>	<u>99,174,880</u>	<u>16.6</u>	<u>163,582</u>	<u>32</u>
OFFSHORE LINES	546.43	47.4	496,376,624	83.4	908,399	34
<u>TOTAL LINES</u>	<u>1,152.70</u>	<u>100.0%</u>	<u>\$595,551,504</u>	<u>100.0%</u>	<u>\$ 516,658</u>	<u>66</u>

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1978
UNDER 3 MILES

<u>PIPELINE</u>	<u>MILES</u>	<u>PERCENTAGE OF TOTAL MILES</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER MILE</u>	<u>NUMBER OF PROJECTS</u>
TRANSMISSION						
TRANSMISSION: MIXED DIAMETER	1.55	3.6%	\$ 480,487	0.7%	\$ 309,992	2
TRANSMISSION: --	--	--	--	--	--	--
TOTAL TRANSMISSION	1.55	3.6	480,487	0.7	309,992	2
LATERAL						
LATERAL: MIXED DIAMETER	13.17	30.5	1,278,616	2.0	97,085	11
LATERAL: 6.1	2.62	6.1	612,159	0.9	233,648	3
TOTAL LATERAL	15.79	36.6	1,890,775	2.9	119,745	14
<u>TOTAL ONSHORE LINES</u>	<u>17.34</u>	<u>40.2</u>	<u>2,371,262</u>	<u>3.6</u>	<u>136,751</u>	<u>16</u>
<u>OFFSHORE LINES</u>	<u>25.85</u>	<u>59.8</u>	<u>62,960,535</u>	<u>96.4</u>	<u>2,435,611</u>	<u>17</u>
<u>TOTAL LINES</u>	<u>43.19</u>	<u>100.0%</u>	<u>\$65,331,797</u>	<u>100.0%</u>	<u>\$1,512,660</u>	<u>33</u>

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1979

<u>PIPELINE</u>	<u>MILES</u>	<u>PERCENTAGE OF TOTAL MILES</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER MILE</u>	<u>NUMBER OF PROJECTS</u>
TRANSMISSION	139.48	21.1%	\$ 68,543,781	22.6%	\$491,424	8
TRANSMISSION: MIXED DIAMETER	7.80	1.2	2,662,610	0.9	341,360	1
TOTAL TRANSMISSION	147.28	22.3	71,206,391	23.5	483,476	9
LATERAL	207.10	31.3	37,175,501	12.2	179,505	42
LATERAL: MIXED DIAMETER	15.84	2.4	1,775,307	0.6	112,077	6
TOTAL LATERAL	222.94	33.7	38,950,808	12.8	174,714	48
<u>TOTAL ONSHORE LINES</u>	<u>370.22</u>	<u>56.0</u>	<u>110,157,199</u>	<u>36.3</u>	<u>297,545</u>	<u>57</u>
<u>OFFSHORE LINES</u>	<u>291.49</u>	<u>44.0</u>	<u>192,963,283</u>	<u>63.7</u>	<u>661,989</u>	<u>32</u>
<u>TOTAL LINES</u>	<u>661.71</u>	<u>100.0%</u>	<u>\$303,120,482</u>	<u>100.0%</u>	<u>\$458,087</u>	<u>89</u>

**SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1979
3 MILES AND OVER**

<u>PIPELINE</u>	<u>MILES</u>	<u>PERCENTAGE OF TOTAL MILES</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER MILE</u>	<u>NUMBER OF PROJECTS</u>
TRANSMISSION						
TRANSMISSION: MIXED DIAMETER	139.48	22.4%	\$ 68,543,781	24.4%	\$491,424	8
TOTAL TRANSMISSION	7.80	1.2	2,662,610	0.9	341,360	1
LATERAL	147.28	23.6	71,206,391	25.3	483,476	9
LATERAL: MIXED DIAMETER	181.98	29.2	33,189,228	11.8	182,378	19
TOTAL LATERAL	12.20	2.0	1,063,340	0.4	87,159	3
TOTAL ONSHORE LINES	194.18	31.2	34,252,568	12.2	176,396	22
OFFSHORE LINES	341.46	54.8	105,458,959	37.5	308,847	31
TOTAL LINES	281.10	45.2	175,450,822	62.5	624,158	25
	622.56	100.0%	\$280,909,781	100.0%	\$451,217	56

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1979
UNDER 3 MILES

<u>PIPELINE</u>	<u>MILES</u>	<u>PERCENTAGE OF TOTAL MILES</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER MILE</u>	<u>NUMBER OF PROJECTS</u>
TRANSMISSION	--	-- %	\$ --	-- %	\$ --	--
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	--	--	--	--	--	--
LATERAL	25.12	64.2	3,986,273	18.0	158,689	23
LATERAL: MIXED DIAMETER	3.64	9.3	711,967	3.2	195,595	3
TOTAL LATERAL	28.76	73.5	4,698,240	21.2	163,360	26
<u>TOTAL ONSHORE LINES</u>	<u>28.76</u>	<u>73.5</u>	<u>4,698,240</u>	<u>21.2</u>	<u>163,360</u>	<u>26</u>
<u>OFFSHORE LINES</u>	<u>10.39</u>	<u>26.5</u>	<u>17,512,461</u>	<u>78.8</u>	<u>1,685,511</u>	<u>7</u>
<u>TOTAL LINES</u>	<u>39.15</u>	<u>100.0%</u>	<u>\$ 22,210,701</u>	<u>100.0%</u>	<u>\$ 567,323</u>	<u>33</u>

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1980

<u>PIPELINE</u>	<u>MILES</u>	<u>PERCENTAGE OF TOTAL MILES</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER MILE</u>	<u>NUMBER OF PROJECTS</u>
TRANSMISSION	387.61	37.6%	\$141,876,661	36.1%	\$ 366,029	20
TRANSMISSION: MIXED DIAMETER	4.08	0.4	869,045	0.2	213,001	1
TOTAL TRANSMISSION	391.69	38.0	142,745,706	36.3	364,435	21
LATERAL	257.48	24.9	32,839,290	8.3	127,541	25
LATERAL: MIXED DIAMETER	95.74	9.3	13,975,066	3.6	145,969	10
TOTAL LATERAL	353.22	34.2	46,814,356	11.9	132,536	35
<u>TOTAL ONSHORE LINES</u>	<u>744.91</u>	<u>72.2</u>	<u>189,560,062</u>	<u>48.2</u>	<u>254,474</u>	<u>56</u>
<u>OFFSHORE LINES</u>	<u>286.76</u>	<u>27.8</u>	<u>203,612,456</u>	<u>51.8</u>	<u>710,045</u>	<u>28</u>
<u>TOTAL LINES</u>	<u>1,031.67</u>	<u>100.0%</u>	<u>\$393,172,518</u>	<u>100.0%</u>	<u>\$ 381,103</u>	<u>84</u>

SUMMARY: PIPELINE CONSTRUCTION
ENDING IN 1980
3 MILES AND OVER

<u>PIPELINE</u>	<u>MILES</u>	<u>PERCENTAGE OF TOTAL MILES</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER MILE</u>	<u>NUMBER OF PROJECTS</u>
TRANSMISSION	381.06	38.2%	\$ 138,423,477	38.7%	\$ 363,259	15
TRANSMISSION: MIXED DIAMETER	4.08	0.4	869,045	0.3	213,001	1
TOTAL TRANSMISSION	385.14	38.6	139,292,522	39.0	361,667	16
LATERAL	245.41	24.6	30,407,721	8.5	123,906	13
LATERAL: MIXED DIAMETER	93.30	9.3	13,504,213	3.8	144,740	7
TOTAL LATERAL	338.71	33.9	43,911,934	12.3	129,645	20
<u>TOTAL ONSHORE LINES</u>	<u>723.85</u>	<u>72.5</u>	<u>183,204,456</u>	<u>51.3</u>	<u>253,097</u>	<u>36</u>
OFFSHORE LINES	274.87	27.5	184,197,465	48.7	670,126	18
<u>TOTAL LINES</u>	<u>998.72</u>	<u>100.0%</u>	<u>\$ 367,401,921</u>	<u>100.0%</u>	<u>\$ 367,873</u>	<u>54</u>

SUMMARY : PIPELINE CONSTRUCTION
ENDING IN 1980
UNDER 3 MILES

<u>PIPELINE</u>	<u>MILES</u>	<u>PERCENTAGE OF TOTAL MILES</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER MILE</u>	<u>NUMBER OF PROJECTS</u>
TRANSMISSION	6.55	19.9%	\$ 3,453,184	13.4%	\$ 527,204	5
TRANSMISSION: MIXED DIAMETER	--	--	--	--	--	--
TOTAL TRANSMISSION	6.55	19.9	3,453,184	13.4	527,204	5
LATERAL	12.07	36.6	2,431,569	9.5	201,456	12
LATERAL: MIXED DIAMETER	2.44	7.4	470,853	1.8	192,973	3
TOTAL LATERAL	14.51	44.0	2,902,422	11.3	200,029	15
<u>TOTAL ONSHORE LINES</u>	<u>21.06</u>	<u>63.9</u>	<u>6,355,606</u>	<u>24.7</u>	<u>301,786</u>	<u>20</u>
<u>OFFSHORE LINES</u>	<u>11.89</u>	<u>36.1</u>	<u>19,414,991</u>	<u>75.3</u>	<u>1,632,884</u>	<u>10</u>
<u>TOTAL LINES</u>	<u>32.95</u>	<u>100.0%</u>	<u>\$25,770,597</u>	<u>100.0%</u>	<u>\$ 782,112</u>	<u>30</u>

SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1976

<u>COMPRESSORS</u>	<u>HORSEPOWER</u>	<u>PERCENTAGE OF TOTAL HORSEPOWER</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER HORSEPOWER</u>	<u>NUMBER OF PROJECTS</u>
RECIPROCATING UNITS : ONSHORE OFFSHORE	55,094 --	62.2% --	\$ 33,259,629 --	60.8% --	\$ 604 --	22 --
TOTAL RECIPROCATING UNITS						
TURBINE UNITS : ONSHORE OFFSHORE	20,830 11,400	23.5 12.9	10,658,180 10,253,367	19.5 18.7	512 899	8 3
TOTAL TURBINE UNITS						
ELECTRIC MOTOR UNITS : ONSHORE OFFSHORE	32,230 1,250	36.4 1.4	20,911,547 523,160	38.2 1.0	649 419	11 1
TOTAL ELECTRIC MOTORS UNITS						
TOTAL ONSHORE UNITS	77,174	87.1	44,440,969	81.3	576	31
TOTAL OFFSHORE UNITS	11,400	12.9	10,253,367	18.7	899	3
<u>TOTAL COMPRESSION</u>	<u>88,574</u>	<u>100.0%</u>	<u>\$ 54,694,336</u>	<u>100.0%</u>	<u>\$ 617</u>	<u>34</u>

SUMMARY : COMPRESSOR CONSTRUCTION
ENDING IN 1977

<u>COMPRESSORS</u>	<u>HORSEPOWER</u>	<u>PERCENTAGE OF TOTAL HORSEPOWER</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER HORSEPOWER</u>	<u>NUMBER OF PROJECTS</u>
RECIPROCATING UNITS :						
ONSHORE	4,200	5.4%	\$ 3,876,327	10.7%	\$ 923	2
OFFSHORE	--	--	--	--	--	--
TOTAL RECIPROCATING UNITS	4,200	5.4	3,876,327	10.7	923	2
TURBINE UNITS :						
ONSHORE	56,340	72.0	22,349,081	61.6	397	4
OFFSHORE	15,150	19.4	8,613,065	23.8	569	4
TOTAL TURBINE UNITS	71,490	91.4	30,962,146	85.4	433	8
ELECTRIC MOTOR UNITS :						
ONSHORE	2,500	3.2	1,420,585	3.9	568	1
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTORS UNITS	2,500	3.2	1,420,585	3.9	568	1
<u>TOTAL ONSHORE UNITS</u>	<u>63,040</u>	<u>80.6</u>	<u>27,645,993</u>	<u>76.2</u>	<u>439</u>	<u>7</u>
<u>TOTAL OFFSHORE UNITS</u>	<u>15,150</u>	<u>19.4</u>	<u>8,613,065</u>	<u>23.8</u>	<u>569</u>	<u>4</u>
<u>TOTAL COMPRESSION</u>	<u>78,190</u>	<u>100.0%</u>	<u>\$ 36,259,058</u>	<u>100.0%</u>	<u>\$ 464</u>	<u>11</u>

SUMMARY : COMPRESSOR CONSTRUCTION
ENDING IN 1978

<u>COMPRESSORS</u>	<u>HORSEPOWER</u>	<u>PERCENTAGE OF TOTAL HORSEPOWER</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER HORSEPOWER</u>	<u>NUMBER OF PROJECTS</u>
RECIPROCATING UNITS : ONSHORE	58,662	31.0%	\$ 55,441,828	24.0%	\$ 945	15
OFFSHORE	8,800	4.6	7,541,067	3.2	857	4
TOTAL RECIPROCATING UNITS	67,462	35.6	62,982,895	27.2	934	19
TURBINE UNITS: ONSHORE	42,480	22.4	19,041,773	8.2	448	5
OFFSHORE	60,300	31.8	141,245,072	61.0	2,342	4
TOTAL TURBINE UNITS	102,780	54.2	160,286,845	69.2	1,560	9
ELECTRIC MOTOR UNITS: ONSHORE	19,250	10.2	8,380,739	3.6	435	3
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTORS UNITS	19,250	10.2	8,380,739	3.6	435	3
<u>TOTAL ONSHORE UNITS</u>	<u>120,392</u>	<u>63.6</u>	<u>82,864,340</u>	<u>35.8</u>	<u>688</u>	<u>23</u>
<u>TOTAL OFFSHORE UNITS</u>	<u>69,100</u>	<u>36.4</u>	<u>148,786,139</u>	<u>64.2</u>	<u>2,153</u>	<u>8</u>
<u>TOTAL COMPRESSION</u>	<u>189,492</u>	<u>100.0%</u>	<u>\$ 231,650,479</u>	<u>100.0%</u>	<u>\$ 1,222</u>	<u>31</u>

SUMMARY: COMPRESSOR CONSTRUCTION
ENDING IN 1979

<u>COMPRESSORS</u>	<u>HORSEPOWER</u>	<u>PERCENTAGE OF TOTAL HORSEPOWER</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER HORSEPOWER</u>	<u>NUMBER OF PROJECTS</u>
RECIPROCATING UNITS : ONSHORE	48,294	83.3%	\$ 37,494,509	79.8%	\$ 776	19
OFFSHORE	1,000	1.7	4,190,501	8.9	4,191	1
TOTAL RECIPROCATING UNITS	49,294	85.0	41,685,010	88.7	846	20
TURBINE UNITS : ONSHORE	4,694	8.1	3,866,620	8.2	824	2
OFFSHORE	4,000	6.9	1,467,709	3.1	367	1
TOTAL TURBINE UNITS	8,694	15.0	5,334,329	11.3	614	3
ELECTRIC MOTOR UNITS : ONSHORE	--	--	--	--	--	--
OFFSHORE	--	--	--	--	--	--
TOTAL ELECTRIC MOTORS UNITS	--	--	--	--	--	--
<u>TOTAL ONSHORE UNITS</u>	<u>52,988</u>	<u>91.4</u>	<u>41,361,129</u>	<u>88.0</u>	<u>781</u>	<u>21</u>
<u>TOTAL OFFSHORE UNITS</u>	<u>5,000</u>	<u>8.6</u>	<u>5,658,210</u>	<u>12.0</u>	<u>1,132</u>	<u>2</u>
<u>TOTAL COMPRESSION</u>	<u>57,988</u>	<u>100.0%</u>	<u>\$ 47,019,339</u>	<u>100.0%</u>	<u>\$ 811</u>	<u>23</u>

SUMMARY : COMPRESSOR CONSTRUCTION
ENDING IN 1980

<u>COMPRESSORS</u>	<u>HORSEPOWER</u>	<u>PERCENTAGE OF TOTAL HORSEPOWER</u>	<u>COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>PERCENTAGE OF TOTAL COST</u>	<u>AVERAGE COST PER HORSEPOWER</u>	<u>NUMBER OF PROJECTS</u>
RECIPROCATING UNITS :	ONSHORE	54,978	\$ 65,617,008	59.1%	\$ 1,194		
	OFFSHORE	1,200	889,292	0.8	741		23
TOTAL RECIPROCATING UNITS		56,178	66,506,300	59.9	1,184		24
TURBINE UNITS :	ONSHORE	52,290	42,561,932	38.3	814	12	
	OFFSHORE	3,000	2,029,592	1.8	677	1	
TOTAL TURBINE UNITS		55,290	44,591,524	40.1			13
ELECTRIC MOTOR UNITS :	ONSHORE	--	--	--	--	--	
	OFFSHORE	--	--	--	--	--	
TOTAL ELECTRIC MOTORS UNITS		--	--	--	--	--	
TOTAL ONSHORE UNITS		107,268	108,178,940	97.4	1,008	35	-
TOTAL OFFSHORE UNITS		4,200	2,918,884	2.6	695	2	-
TOTAL COMPRESSION		111,468	\$ 111,097,824	100.0%	\$ 997	37	

COMPANY ABBREVIATIONS

ANR STORAGE CO.	ANR STGE
ALABAMA GAS CORP.	ALA GAS
ARKANSAS LOUISIANA GAS CO.	ARKLA
ARKANSAS OKLAHOMA GAS CORP.	ARK OK
CITIES SERVICE GAS CO.	CITIES
COLORADO INTERSTATE GAS CO.	CIG
COLUMBIA GAS TRANSMISSION CORP.	COLUMBIA GAS
COLUMBIA GULF TRANSMISSION CO.	COLUMBIA GULF
CONSOLIDATED GAS SUPPLY CORP.	CON GAS
EL PASO NATURAL GAS CO.	EL PASO
FLORIDA GAS TRANSMISSION CO.	FLA GAS
GREAT LAKES GAS TRANSMISSION CO.	GREAT LAKES
HIGH ISLAND OFFSHORE SYSTEM	HIOS
KANSAS-NEBRASKA NATURAL GAS CO, INC.	KANSAS-NEBRASKA
MICHIGAN WISCONSIN PIPE LINE CO.	MICH WISC
MIDWESTERN GAS TRANSMISSION CO.	MIDWESTERN
MONTANA-DAKOTA UTILITIES CO.	MONTANA-DAKOTA
MOUNTAIN FUEL SUPPLY CO.	MOUNTAIN FUEL
NATIONAL FUEL GAS SUPPLY CORP.	NATIONAL FUEL
NATURAL GAS PIPELINE CO. OF AMERICA	NGPL
NORTHERN NATURAL GAS CO.	NORTHERN
NORTHWEST PIPELINE CORP.	NORTHWEST
PANHANDLE EASTERN PIPE LINE CORP.	PANHANDLE
SOUTHERN NATURAL GAS CO.	SOUTHERN
SOUTHWEST GAS CORP.	SOUTHWEST
STINGRAY PIPELINE CO.	STINGRAY
TENNESSEE GAS PIPELINE CO. (A DIVISION OF TENNECO, INC.)	TENNECO
TEXAS EASTERN TRANSMISSION CORP.	TETCO
TEXAS GAS TRANSMISSION CORP.	TEXAS GAS
TRANSCONTINENTAL GAS PIPE LINE CORP.	TRANSCO
UNITED GAS PIPE LINE CO.	UNITED
VALERO INTERSTATE TRANSMISSION CO.	VALERO
WESTERN GAS INTERSTATE CO.	WESTERN

LIST OF DESCRIPTIVE ABBREVIATIONS USED
IN THE CONSTRUCTION REPORT

<u>ITEM</u>	<u>ABBREVIATION</u>
AVERAGE	AVG.
BLOCK	BLK.
COMPRESSOR	COMP.
CONSTRUCTION	CONST.
COUNTY	CO.
DIAMETER	DIAM.
EAST	E.
FIELD	FLD.
ISLAND	ISL.
NUMBER	NO.
PARISH	PAR.
PLATFORM	PLAT.
STATION	STA.
STORAGE	STGE.
WEST	W.

PART I: COMPARATIVE SUMMARY 1977-1980

Table A
Sheet 1 of 1
Page 28

PIPELINE CONSTRUCTION EXPENDITURES
CONSTRUCTION ENDING IN 1976 THROUGH 1980

		YEAR CONSTRUCTION ENDED			
		1976	1977	1978	1979
					1980
ONSHORE MILES -	3 MILES AND OVER				
EXPENDITURES		409,82	240,07	564,03	321,46
AVG. COST PER MILE		\$ 60,436,739	43,362,424	90,467,707	101,733,009
		\$ 147,471	180,624	160,395	316,472
UNDER 3 MILES					
EXPENDITURES		1/	1/	14,72	25,12
AVG. COST PER MILE		\$ 59,24	1/	1,759,103	3,986,273
MIXED DIAMETER-3 MILES AND OVER					
EXPENDITURES		5,820,782	4,409,232	8,707,173	3,725,950
AVG. COST PER MILE		\$ 98,258	156,912	206,136	186,298
MIXED DIAMETER-UNDER 3 MILES					
EXPENDITURES		1/	1/	2,62	3,64
AVG. COST PER MILE		\$ 469,06	1/	612,159	711,967
TOTAL ONSHORE MILES					
TOTAL ONSHORE EXPENDITURES		66,257,521	47,771,656	101,546,142	110,157,199
TOTAL AVG. COST PER MILE		\$ 141,256	178,139	162,836	297,545
OFFSHORE MILES -3 MILES AND OVER					
EXPENDITURES		154,46	279,12	546,43	281,10
AVG. COST PER MILE		\$ 108,897,491	163,404,339	496,376,624	175,450,822
		\$ 705,021	585,427	908,399	624,158
UNDER 3 MILES					
EXPENDITURES		1/	1/	25,85	10,39
AVG. COST PER MILE		\$ 154,46	1/	62,960,535	17,512,461
TOTAL OFFSHORE MILES					
TOTAL OFFSHORE EXPENDITURES		\$ 108,897,491	163,404,339	559,337,159	192,963,283
TOTAL AVG. COST PER MILE		\$ 705,021	585,427	977,384	661,989
TOTAL ONSHORE AND OFFSHORE MILES					
		623.52	547.29	1,195.89	661.71
TOTAL ONSHORE AND OFFSHORE EXPENDITURES		\$ 175,155,012	211,175,995	660,883,301	303,120,482
TOTAL AVG. COST PER MILE		\$ 280,913	385,858	552,629	458,087
					381,103

1/ CATEGORY NOT INTRODUCED UNTIL 1978.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-1
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MILES OF PIPE CONSTRUCTED COST DATA	6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977	1978	1979
MATERIALS			
TOTAL MATERIALS	\$	\$	\$
MATERIAL % OF THE TOTAL \$	%	%	%
MATERIAL AVG. COST PER MILE	\$	\$	\$
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ...	\$	\$	\$
ENGINEERING ... % OF THE TOTAL \$	%	%	%
ENGINEERING ... AVG. COST PER MILE	\$	\$	\$
LABOR			
TOTAL LABOR	\$	\$	\$
LABOR % OF THE TOTAL \$	%	%	%
LABOR AVG. COST PER MILE	\$	\$	\$
RIGHT-OF-WAY AND DAMAGES			
TOTAL RIGHT-OF-WAY ...	\$	\$	\$
RIGHT-OF-WAY ... % OF THE TOTAL \$	%	%	%
RIGHT-OF-WAY ... AVG. COST PER MILE	\$	\$	\$
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$	\$	\$
OVERHEAD	\$	\$	\$
OTHER MISCELLANEOUS <u>1/</u>	\$	\$	\$
TOTAL MISCELLANEOUS	\$	\$	\$
MISCELLANEOUS % OF THE TOTAL \$	%	%	%
MISCELLANEOUS AVG. COST PER MILE	\$	\$	\$
TOTAL COST	\$	\$	\$
TOTAL COST	\$	\$	\$
TOTAL AVG. COST PER MILE	\$	\$	\$
COST RANGE PER MILE			
MINIMUM	\$	\$	\$
MAXIMUM	\$	\$	\$

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.
3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

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	<u>10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED</u>	<u>1980</u>		
	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
<u>MILES OF PIPE CONSTRUCTED</u>				
<u>COST DATA</u>				
<u>MATERIALS</u>				
<u>TOTAL MATERIALS</u>	\$	\$	\$	\$
MATERIAL % OF THE TOTAL \$				
MATERIAL AVG. COST PER MILE				
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>				
<u>TOTAL ENGINEERING</u>	\$	\$	\$	\$
ENGINEERING % OF THE TOTAL \$				
ENGINEERING ... AVG. COST PER MILE				
<u>LABOR</u>				
<u>TOTAL LABOR</u>	\$	\$	\$	\$
LABOR % OF THE TOTAL \$				
LABOR AVG. COST PER MILE				
<u>RIGHT-OF-WAY AND DAMAGES</u>				
<u>TOTAL RIGHT-OF-WAY</u>	\$	\$	\$	\$
RIGHT-OF-WAY % OF THE TOTAL \$				
RIGHT-OF-WAY ... AVG. COST PER MILE				
<u>MISCELLANEOUS</u>				
<u>INTEREST DURING CONSTRUCTION</u>	\$	\$	\$	\$
OVERHEAD	--	--	--	--
OTHER MISCELLANEOUS	1/			
TOTAL MISCELLANEOUS				
MISCELLANEOUS % OF THE TOTAL \$				
MISCELLANEOUS AVG. COST PER MILE				
<u>TOTAL COST</u>				
<u>TOTAL COST</u>	\$	\$	\$	\$
TOTAL AVG. COST PER MILE				
<u>COST RANGE PER MILE</u>				
<u>MINIMUM</u>				
MAXIMUM				

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

4/ INCLUDES LATERAL PIPELINE IN THE AMOUNTS OF: 3.07 MILES OF 8 INCH, 5.12 MILES OF 6 INCH, AND 3.46 MILES OF 4 INCH.

85.01 4/
153,917 67,736

85.01 4/
13.10 439,877

85.01 4/
33,578 3,156,969

37,137 44.4
6,727 139,193

5.4 2.0
78,172 88,119

62.6 42.5
4,619 1,024,056

3.7 4.3
3,591 3,018,560

4.3 4.3
5.68 305,298

1.4 1.4
1,746 60,514

2.0 2.0
3,591 22,866

4.3 4.3
5,678 256,310

4.3 4.3
1,746 146,241

4.3 4.3
1,746 80,100

4.3 4.3
1,746 482,651

4.3 4.3
1,746 5.678

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-1
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 Page 31

MILES OF PIPE CONSTRUCTED COST DATA	12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977	1978	1979
MATERIALS			
TOTAL MATERIALS	\$	%	
MATERIAL % OF THE TOTAL \$	\$	%	
MATERIAL AVG. COST PER MILE	\$		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ...	\$	%	
ENGINEERING ... % OF THE TOTAL \$	\$	%	
ENGINEERING ... AVG. COST PER MILE	\$		
LABOR			
TOTAL LABOR	\$	%	
LABOR % OF THE TOTAL \$	\$	%	
LABOR AVG. COST PER MILE	\$		
RIGHT-OF-WAY AND DAMAGES			
TOTAL RIGHT-OF-WAY ...	\$	%	
RIGHT-OF-WAY ... % OF THE TOTAL \$	\$	%	
RIGHT-OF-WAY ... AVG. COST PER MILE	\$		
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION			
OVERHEAD	\$	\$	
OTHER MISCELLANEOUS 1/	\$	\$	
TOTAL MISCELLANEOUS 2/	\$	\$	
MISCELLANEOUS % OF THE TOTAL \$	\$	%	
MISCELLANEOUS AVG. COST PER MILE	\$		
TOTAL COST	\$	\$	
TOTAL COST	\$	2/	
TOTAL AVG. COST PER MILE	\$		
COST RANGE PER MILE			
MINIMUM	\$	\$	
MAXIMUM	\$	\$	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
 2/ NO REPORTS RECEIVED FOR THIS YEAR.
 3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-1
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 Page 32

MILES OF PIPE CONSTRUCTED COST DATA	16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977	1978	1979
<u>MATERIALS</u>			
TOTAL MATERIALS	\$	\$	\$
MATERIAL % OF THE TOTAL \$			
MATERIAL AVG. COST PER MILE			
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING	\$	\$	\$
ENGINEERING ... % OF THE TOTAL \$			
ENGINEERING ... AVG. COST PER MILE			
<u>LABOR</u>			
TOTAL LABOR	\$	\$	\$
LABOR % OF THE TOTAL \$			
LABOR AVG. COST PER MILE			
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY	\$	\$	\$
RIGHT-OF-WAY ... % OF THE TOTAL \$			
RIGHT-OF-WAY ... AVG. COST PER MILE			
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$	\$	\$
OVERHEAD	\$	\$	\$
OTHER MISCELLANEOUS <u>1/</u>			
TOTAL MISCELLANEOUS	\$	\$	\$
MISCELLANEOUS % OF THE TOTAL \$			
MISCELLANEOUS AVG. COST PER MILE			
<u>TOTAL COST</u>			
TOTAL COST	\$	\$	\$
TOTAL AVG. COST PER MILE			
<u>COST RANGE PER MILE</u>			
MINIMUM	\$	\$	\$
MAXIMUM			

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-1
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Page 33

MILES OF PIPE CONSTRUCTED <u>COST DATA</u>	20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1977 <u>3.51</u>	1978 <u>1.679</u>
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 337,727	
MATERIAL % OF THE TOTAL \$	43.2%	
MATERIAL AVG. COST PER MILE	\$ 96,219	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING	\$ 21,521	
ENGINEERING ... % OF THE TOTAL \$	2.8%	
ENGINEERING ... AVG. COST PER MILE	\$ 6,131	
<u>LABOR</u>		
TOTAL LABOR	\$ 403,482	
LABOR % OF THE TOTAL \$	51.7%	
LABOR AVG. COST PER MILE	\$ 114,952	
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY	\$ 5,015	
RIGHT-OF-WAY ... % OF THE TOTAL \$	0.6%	
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 1,429	
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 6,710	
OVERHEAD	\$ --	
OTHER MISCELLANEOUS <u>1/</u>	\$ 6,531	
TOTAL MISCELLANEOUS	\$ 13,241	
MISCELLANEOUS % OF THE TOTAL \$	3.7%	
MISCELLANEOUS AVG. COST PER MILE	\$ 3,772	
<u>TOTAL COST</u>		
TOTAL COST	\$ 780,986	
TOTAL AVG. COST PER MILE	\$ 222,503	
<u>COST RANGE PER MILE</u>		
MINIMUM	\$ 3/	
MAXIMUM	\$ 2/	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.
3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FOR CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-1
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 Page 34

MILES OF PIPE CONSTRUCTED COST DATA	24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977 <u>20.00</u>	1978 <u>144.50</u>	1979 <u>35.60</u>
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 2,209,821	15,822,385	6,768,050
MATERIAL % OF THE TOTAL \$	45.8%	52.7	37.9
MATERIAL AVG. COST PER MILE	\$ 110,491	109,497	190,114
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$ 125,471	875,788	299,341
ENGINEERING % OF THE TOTAL \$	2.6%	2.9	1.7
ENGINEERING AVG. COST PER MILE	\$ 6,274	6,061	8,408
<u>LABOR</u>			
TOTAL LABOR	\$ 2,254,372	10,667,483	8,922,694
LABOR % OF THE TOTAL \$	46.8%	35.6	50.0
LABOR AVG. COST PER MILE	\$ 112,719	73,823	250,638
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY ***	\$ 27,666	1,191,817	175,970
RIGHT-OF-WAY % OF THE TOTAL \$	0.6%	4.0	1.0
RIGHT-OF-WAY AVG. COST PER MILE	\$ 1,383	8,248	4,943
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 30,541	501,808	531,690
OVERHEAD	\$ --	394,724	1,144,033
OTHER MISCELLANEOUS 1/	\$ 172,262	544,836	2,918
TOTAL MISCELLANEOUS	\$ 202,803	1,441,368	1,678,641
MISCELLANEOUS % OF THE TOTAL \$	4.2%	4.8	9.4
MISCELLANEOUS AVG. COST PER MILE	\$ 10,140	9,975	47,153
<u>TOTAL COST</u>			
TOTAL COST	\$ 4,820,133	29,998,841	17,844,696
TOTAL AVG. COST PER MILE	\$ 241,007	207,604	501,256
<u>COST RANGE PER MILE</u>			
MINIMUM	\$ 2/	145,214	370,579
MAXIMUM		352,328	655,983

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
 2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-1
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MILES OF PIPE CONSTRUCTED COST DATA	MATERIALS	30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
		1977	1978
	TOTAL MATERIALS	\$ 1,102,200	\$ 1,687,573
	MATERIAL % OF THE TOTAL \$	65.7	54.5
	MATERIAL AVG. COST PER MILE	211,962	226,078
	ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY	\$ 27,567	\$ 1,770,092
	TOTAL ENGINEERING % OF THE TOTAL \$	1.6	6.1
	ENGINEERING % OF THE TOTAL \$	5,301	25,509
	ENGINEERING ... AVG. COST PER MILE		
	LABOR	\$ 411,334	\$ 9,032,942
	TOTAL LABOR % OF THE TOTAL \$	24.5	31.4
	LABOR % OF THE TOTAL \$	79,103	130,177
	LABOR AVG. COST PER MILE		
	RIGHT-OF-WAY AND DAMAGES	\$ 75,355	\$ 908,851
	TOTAL RIGHT-OF-WAY % OF THE TOTAL \$	4.5	3.2
	RIGHT-OF-WAY % OF THE TOTAL \$	14,491	13,098
	RIGHT-OF-WAY ... AVG. COST PER MILE		
	MISCELLANEOUS	\$ 30,656	\$ 1,071,642
	INTEREST DURING CONSTRUCTION	30,744	307,474
	OVERHEAD	—	—
	OTHER MISCELLANEOUS 1/	\$ 61,430	\$ 1,379,116
	TOTAL MISCELLANEOUS % OF THE TOTAL \$	3.7	4.8
	MISCELLANEOUS AVG. COST PER MILE	11,813	19,875
	TOTAL COST	\$ 1,677,886	\$ 28,778,574
	TOTAL COST	2/	414,737
	TOTAL AVG. COST PER MILE	\$ 322,670	
	COST RANGE PER MILE	\$ 3/	\$ 319,482
	MINIMUM		626,910
	MAXIMUM		

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.
3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-1
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		36 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
		1977	1978	1979
MILES OF PIPE CONSTRUCTED	COST DATA			1980 72.40
<u>MATERIALS</u>				
TOTAL MATERIALS	\$	\$	5,697,563	23,791,132
MATERIAL % OF THE TOTAL \$	%	%	41.2	49.1
MATERIAL AVG. COST PER MILE	\$	\$	238,392	272,397
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>				
TOTAL ENGINEERING ...	\$	\$	433,855	325,085
ENGINEERING ... % OF THE TOTAL \$	%	%	3.2	0.7
ENGINEERING ... AVG. COST PER MILE	\$	\$	18,153	3,722
<u>LABOR</u>				
TOTAL LABOR	\$	\$	5,688,476	17,785,837
LABOR % OF THE TOTAL \$	%	%	41.2	36.7
LABOR AVG. COST PER MILE	\$	\$	238,012	203,639
<u>RIGHT-OF-WAY AND DAMAGES</u>				
TOTAL RIGHT-OF-WAY ...	\$	\$	75,123	1,803,887
RIGHT-OF-WAY ... % OF THE TOTAL \$	%	%	0.5	3.7
RIGHT-OF-WAY ... AVG. COST PER MILE	\$	\$	3,143	20,654
<u>MISCELLANEOUS</u>				
INTEREST DURING CONSTRUCTION	\$	\$	--	4,321,056
OVERHEAD	\$	\$	1,926,821	403,372
OTHER MISCELLANEOUS 1/	\$	\$	--	--
TOTAL MISCELLANEOUS 1/	\$	\$	1,926,821	4,724,428
MISCELLANEOUS % OF THE TOTAL \$	%	%	13.9	9.8
MISCELLANEOUS AVG. COST PER MILE	\$	\$	80,620	54,092
<u>TOTAL COST</u>				
TOTAL COST	\$	\$ 2/	13,821,838	48,430,369
TOTAL AVG. COST PER MILE	\$	\$	578,320	554,504
<u>COST RANGE PER MILE</u>				
MINIMUM	\$	\$	547,079	443,024
MAXIMUM	\$	\$	606,337	682,280

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
 2/ NO REPORTS RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-1
Sheet 9 of 9
Page 37

MILES OF PIPE CONSTRUCTED COST DATA	42 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977 <u>22.30</u>	1978 <u>—</u>	1979 <u>1980</u>
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 7,435,529		
MATERIAL % OF THE TOTAL \$	38.1%		
MATERIAL AVG. COST PER MILE	\$ 333,432		
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$ 904,439		
ENGINEERING *** % OF THE TOTAL \$	4.6%		
ENGINEERING ... AVG. COST PER MILE	\$ 40,558		
<u>LABOR</u>			
TOTAL LABOR	\$ 5,451,031		
LABOR % OF THE TOTAL \$	28.0%		
LABOR AVG. COST PER MILE	\$ 244,441		
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY ***	\$ 2,287,300		
RIGHT-OF-WAY *** % OF THE TOTAL \$	11.7%		
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 102,569		
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 2,836,519		
OVERHEAD	\$ 584,910		
OTHER MISCELLANEOUS 1/	\$ —		
TOTAL MISCELLANEOUS	\$ 3,421,429		
MISCELLANEOUS % OF THE TOTAL \$	17.6%		
MISCELLANEOUS AVG. COST PER MILE	\$ 153,427		
<u>TOTAL COST</u>			
TOTAL COST	\$ 19,499,728		
TOTAL AVG. COST PER MILE	\$ 874,427		
<u>COST RANGE PER MILE</u>			
MINIMUM	\$ 828,080		
MAXIMUM	\$ 989,570		

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-2
 Sheet 1 of 17
 Page 38

MILES OF PIPE CONSTRUCTED COST DATA	2 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977	1978	1979 1980
<u>MATERIALS</u>			
TOTAL MATERIALS	\$	\$	45,480
MATERIAL % OF THE TOTAL \$	%	%	37.2
MATERIAL AVG.	\$	\$	8,581
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$	\$	1,540
ENGINEERING *** % OF THE TOTAL \$	%	%	1.3
ENGINEERING *** AVG. COST PER MILE	\$	\$	291
<u>LABOR</u>			
TOTAL LABOR	\$	\$	69,050
LABOR % OF THE TOTAL \$	%	%	56.5
LABOR AVG.	\$	\$	13,028
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY ***	\$	\$	4,640
RIGHT-OF-WAY *** % OF THE TOTAL \$	%	%	3.8
RIGHT-OF-WAY *** AVG. COST PER MILE	\$	\$	875
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$	\$	830
OVERHEAD	\$	\$	--
OTHER MISCELLANEOUS 1/	\$	\$	680
TOTAL MISCELLANEOUS	\$	\$	1,510
MISCELLANEOUS % OF THE TOTAL \$	%	%	1.2
MISCELLANEOUS AVG. COST PER MILE	\$	\$	285
<u>TOTAL COST</u>			
TOTAL COST	\$	\$	122,220
TOTAL AVG. COST PER MILE	\$	\$	23,060
<u>COST RANGE PER MILE</u>			
MINIMUM	\$	\$	2/
MAXIMUM	\$	\$	3/

1/ CONSISTS OF CONTINGENCIES, FRANCHISEES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.
 3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-2
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MILES OF PIPE CONSTRUCTED COST DATA	4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977 <u>9.14</u>	1978 <u>127.70</u>	1979 <u>19.20</u>
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 130,168	1,368,731	248,132
MATERIAL % OF THE TOTAL \$	45.8%	44.2	34.2
MATERIAL AVG.	\$ 14,241	10,718	12,924
MATERIAL COST PER MILE			27,128
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING . . .	\$ --	18,722	63,627
ENGINEERING . . . % OF THE TOTAL \$	% --	0.6	8.8
ENGINEERING . . . AVG. COST PER MILE	\$ --	147	3,314
12.2			7,318
<u>LABOR</u>			
TOTAL LABOR	\$ 138,643	1,240,697	316,558
LABOR % OF THE TOTAL \$	48.8%	40.1	43.7
LABOR AVG.	\$ 15,169	9,716	16,487
LABOR COST PER MILE			17,470
29.2			
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY . . .	\$ 5,976	363,781	64,858
RIGHT-OF-WAY . . . % OF THE TOTAL \$	2.1%	11.8	8.9
RIGHT-OF-WAY . . . AVG. COST PER MILE	\$ 654	2,849	3,378
7.0			4,153
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 1,550	883	--
OVERHEAD	\$ 2,150	100,292	25,955
OTHER MISCELLANEOUS <u>1/</u>	\$ 5,501	639	6,070
TOTAL MISCELLANEOUS	\$ 9,201	101,814	32,025
MISCELLANEOUS % OF THE TOTAL \$	3.3%	3.3	4.4
MISCELLANEOUS AVG. COST PER MILE	\$ 1,007	797	1,668
6.2			3,734
<u>TOTAL COST</u>			
TOTAL COST	\$ 283,988	3,093,745	725,200
TOTAL AVG. COST PER MILE	\$ 31,071	24,227	37,771
59,803			
<u>COST RANGE PER MILE</u>			
MINIMUM	\$ 2/		32,769
MAXIMUM	\$ 2/		64,780
70,219			

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

3/ INCLUDES LATERAL PIPELINE IN THE AMOUNTS OF: 12.20 MILES OF 12 INCH, 7.10 MILES OF 8 INCH,
 7.00 MILES OF 6 INCH, AND 0.20 MILES OF 3 INCH.

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MILES OF PIPE CONSTRUCTED		COST DATA		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
				1976	
				8.60	
MATERIALS		TOTAL MATERIALS	\$	216,247	
		MATERIAL % OF THE TOTAL \$		40.6%	
		MATERIAL AVG. COST PER MILE	\$	25,145	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		TOTAL ENGINEERING ...	\$	58,587	
		ENGINEERING ... % OF THE TOTAL \$		11.0%	
		ENGINEERING ... AVG. COST PER MILE	\$	6,813	
LABOR		TOTAL LABOR	\$	138,038	
		LABOR % OF THE TOTAL \$		25.9%	
		LABOR AVG. COST PER MILE	\$	16,051	
RIGHT-OF-WAY AND DAMAGES		TOTAL RIGHT-OF-WAY ...	\$	83,257	
		RIGHT-OF-WAY ... % OF THE TOTAL \$		15.7%	
		RIGHT-OF-WAY ... AVG. COST PER MILE	\$	9,681	
MISCELLANEOUS		INTEREST DURING CONSTRUCTION	\$	26,210	
		OVERHEAD	\$	9,878	
		OTHER MISCELLANEOUS 1/	\$	--	
		TOTAL MISCELLANEOUS	\$	36,088	
		MISCELLANEOUS % OF THE TOTAL \$		6.8%	
		MISCELLANEOUS AVG. COST PER MILE	\$	4,196	
TOTAL COST		TOTAL COST	\$	532,217	
		TOTAL AVG. COST PER MILE	\$	61,886	
COST RANGE PER MILE					
		MINIMUM	\$	38,392	
		MAXIMUM	\$	76,514	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

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COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINES)
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

MILES OF PIPE CONSTRUCTED COST DATA	6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977 10.63	1978 54.40	1979 7.60
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 241,287	837,115	176,394
MATERIAL % OF THE TOTAL \$	32.8%	47.8	42.6
MATERIAL AVG. COST PER MILE	\$ 22,699	15,388	23,210
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ...	\$ 11,382	25,673	20,877
ENGINEERING ... % OF THE TOTAL \$	1.5%	1.5	5.0
ENGINEERING ... AVG. COST PER MILE	\$ 1,071	472	2,747
<u>LABOR</u>			
TOTAL LABOR	\$ 353,479	674,010	149,803
LABOR % OF THE TOTAL \$	48.0%	38.4	36.2
LABOR AVG. COST PER MILE	\$ 33,253	12,390	19,711
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY ...	\$ 45,350	154,970	57,758
RIGHT-OF-WAY ... % OF THE TOTAL \$	6.2%	8.8	14.0
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 4,266	2,849	7,600
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 1,423	5,360	1,587
OVERHEAD	\$ 20,467	55,184	7,641
OTHER MISCELLANEOUS 1/	\$ 62,814	677	--
TOTAL MISCELLANEOUS	\$ 84,704	61,221	9,228
MISCELLANEOUS % OF THE TOTAL \$	11.5%	3.5	2.2
MISCELLANEOUS AVG. COST PER MILE	\$ 7,968	1,125	1,214
TOTAL COST	\$ 736,202	1,752,989	414,060
TOTAL AVG. COST PER MILE	\$ 69,257	32,224	54,482
<u>COST RANGE PER MILE</u>			
MINIMUM	\$ 65,204	2/	2/
MAXIMUM	\$ 74,179		

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-2
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		8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
		1977	1978	1979
MILES OF PIPE CONSTRUCTED	COST DATA	12.00	12.05	16.50
<u>MATERIALS</u>				
TOTAL MATERIALS	\$ 293,910	387,032	645,214	600,369
MATERIAL % OF THE TOTAL \$	39.3%	37.6	36.9	23.8
MATERIAL AVG. COST PER MILE	\$ 24,492	32,119	39,104	38,119
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>				
TOTAL ENGINEERING ***	\$ 39,594	35,472	152,434	137,126
ENGINEERING *** % OF THE TOTAL \$	5.3%	3.5	8.7	5.4
ENGINEERING *** AVG. COST PER MILE	\$ 3,300	2,944	9,238	8,707
<u>LABOR</u>				
TOTAL LABOR	\$ 378,694	543,015	809,161	1,624,720
LABOR % OF THE TOTAL \$	50.7%	52.8	46.3	64.3
LABOR AVG. COST PER MILE	\$ 31,558	45,064	49,040	103,157
<u>RIGHT-OF-WAY AND DAMAGES</u>				
TOTAL RIGHT-OF-WAY ***	\$ 5,283	39,588	66,143	105,765
RIGHT-OF-WAY *** % OF THE TOTAL \$	0.7%	3.8	3.8	4.2
RIGHT-OF-WAY *** AVG. COST PER MILE	\$ 440	3,285	4,009	6,715
<u>MISCELLANEOUS</u>				
INTEREST DURING CONSTRUCTION	\$ 4,606	12,236	45,724	45,972
OVERHEAD	\$ 25,169	9,726	29,381	—
OTHER MISCELLANEOUS 1/	\$ —	2,068	—	12,435
TOTAL MISCELLANEOUS	\$ 29,775	24,030	75,105	58,407
MISCELLANEOUS % OF THE TOTAL \$	4.0%	2.3	4.3	2.3
MISCELLANEOUS AVG. COST PER MILE	\$ 2,481	1,994	4,552	3,708
<u>TOTAL COST</u>				
TOTAL COST	\$ 747,256	1,029,137	1,748,057	2,526,387
TOTAL AVG. COST PER MILE	\$ 62,271	85,406	105,943	160,406
<u>COST RANGE PER MILE</u>				
MINIMUM	\$ 2/	57,868	69,519	149,926
MAXIMUM	\$ 113,637	173,138	176,548	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

Table B-2
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COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING 1976

		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED
		1976
MILES OF PIPE CONSTRUCTED		26.40 2/
<u>COST DATA</u>		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 974,903	
MATERIAL % OF THE TOTAL \$	51.5%	
MATERIAL AVG. COST PER MILE	\$ 36,928	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ***	\$ 142,990	
ENGINEERING % OF THE TOTAL \$	7.5%	
ENGINEERING ... AVG. COST PER MILE	\$ 5,416	
<u>LABOR</u>		
TOTAL LABOR	\$ 546,684	
LABOR % OF THE TOTAL \$	28.9%	
LABOR AVG. COST PER MILE	\$ 20,708	
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY ***	\$ 129,137	
RIGHT-OF-WAY % OF THE TOTAL \$	6.8%	
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 4,892	
<u>MISCELLANEOUS INTEREST DURING CONSTRUCTION</u>		
OVERHEAD	\$ 58,211	
OTHER MISCELLANEOUS 1/	\$ 26,931	
TOTAL MISCELLANEOUS	\$ 14,840	
MISCELLANEOUS % OF THE TOTAL \$	\$ 99,982	
MISCELLANEOUS AVG. COST PER MILE	\$ 3,787	
<u>TOTAL COST</u>	\$ 1,893,696	
TOTAL COST	\$ 71,731	
TOTAL AVG. COST PER MILE		
<u>COST RANGE PER MILE</u>		
MINIMUM	\$ 59,793	
MAXIMUM	\$ 81,233	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ INCLUDES 0.78 MILES OF 8 INCH LATERAL PIPELINE.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-2
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		10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
		1977	1978	1979
MILES OF PIPE CONSTRUCTED		14.00	42.90	20.80
COST DATA				31.40
<u>MATERIALS</u>				
TOTAL MATERIALS	\$	518,552	1,782,523	1,080,212
MATERIAL % OF THE TOTAL \$	\$	47.6%	41,550	51,933
MATERIAL AVG. COST PER MILE	\$	37,039	41,550	51,36.4
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>				
TOTAL ENGINEERING ...	\$	51,630	122,251	182,511
ENGINEERING ... % OF THE TOTAL \$	\$	4.7%	2,850	8,774
ENGINEERING ... AVG. COST PER MILE	\$	3,688	2,850	7,069
<u>LABOR</u>				
TOTAL LABOR	\$	461,224	6,745,248	1,297,436
LABOR % OF THE TOTAL \$	\$	42.4%	157,232	62,377
LABOR AVG. COST PER MILE	\$	32,945	72.4	43.7
<u>RIGHT-OF-WAY AND DAMAGES</u>				
TOTAL RIGHT-OF-WAY ...	\$	10,824	526,524	122,108
RIGHT-OF-WAY ... % OF THE TOTAL \$	\$	1.0%	5.6	4.1
RIGHT-OF-WAY ... AVG. COST PER MILE	\$	773	12,273	5,871
<u>MISCELLANEOUS</u>				
INTEREST DURING CONSTRUCTION	\$	14,151	130,917	85,526
OVERHEAD	\$	32,430	14,601	202,948
OTHER MISCELLANEOUS 1/	\$	—	1,197	51,303
TOTAL MISCELLANEOUS	\$	46,581	146,715	—
MISCELLANEOUS % OF THE TOTAL \$	\$	4.3%	1.6	288,474
MISCELLANEOUS AVG. COST PER MILE	\$	3,327	3,420	13,869
<u>TOTAL COST</u>				
TOTAL COST	\$	1,088,811	9,323,261	2,970,741
TOTAL AVG. COST PER MILE	\$	77,772	217,325	142,824
<u>COST RANGE PER MILE</u>				
MINIMUM	\$	2/	48,330	54,126
MAXIMUM	\$		302,713	348,515
				69,154
				102,639

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

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COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1976

12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED
1976

MILES OF PIPE CONSTRUCTED	25.64
<u>COST DATA</u>	
<u>MATERIALS</u>	
<u>TOTAL MATERIALS</u>	\$ 1,314,321
MATERIAL % OF THE TOTAL \$	\$ 43.0%
MATERIAL AVG. COST PER MILE	\$ 51,261
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>	
<u>TOTAL ENGINEERING</u>	\$ 128,839
ENGINEERING ... % OF THE TOTAL \$	\$ 4.2%
ENGINEERING ... AVG. COST PER MILE	\$ 5,025
<u>LABOR</u>	
<u>TOTAL LABOR</u>	\$ 1,211,456
LABOR % OF THE TOTAL \$	\$ 39.7%
LABOR AVG. COST PER MILE	\$ 47,249
<u>RIGHT-OF-WAY AND DAMAGES</u>	
<u>TOTAL RIGHT-OF-WAY</u>	\$ 176,005
RIGHT-OF-WAY ... % OF THE TOTAL \$	\$ 5.8%
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 6,864
<u>MISCELLANEOUS</u>	
<u>INTEREST DURING CONSTRUCTION</u>	\$ 58,393
OVERHEAD	\$ 165,959
OTHER MISCELLANEOUS 1/	\$ --
TOTAL MISCELLANEOUS	\$ 224,352
MISCELLANEOUS % OF THE TOTAL \$	\$ 7.3%
MISCELLANEOUS AVG. COST PER MILE	\$ 8,750
<u>TOTAL COST</u>	\$ 3,054,973
<u>TOTAL COST</u>	\$ 119,149
TOTAL AVG. COST PER MILE	\$ 119,149
<u>COST RANGE PER MILE</u>	
<u>MINIMUM</u>	\$ 102,279
MAXIMUM	\$ 126,124

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

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		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
		1977	1978	1979
MILES OF PIPE CONSTRUCTED			40.69	65.70
<u>COST DATA</u>				
<u>MATERIALS</u>				
TOTAL MATERIALS	\$	\$	1,765,404	3,008,935
MATERIAL % OF THE TOTAL \$	%	%	64.0	46.6
MATERIAL AVG. COST PER MILE	\$	\$	43,387	45,798
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>				
TOTAL ENGINEERING	\$	\$	92,383	70,614
ENGINEERING % OF THE TOTAL \$	%	%	3.3	1.1
ENGINEERING AVG. COST PER MILE	\$	\$	2,270	1,075
<u>LABOR</u>				
TOTAL LABOR	\$	\$	694,092	2,853,068
LABOR % OF THE TOTAL \$	%	%	25.2	44.2
LABOR AVG. COST PER MILE	\$	\$	17,058	43,426
<u>RIGHT-OF-WAY AND DAMAGES</u>				
TOTAL RIGHT-OF-WAY	\$	\$	98,967	130,858
RIGHT-OF-WAY % OF THE TOTAL \$	%	%	3.6	2.0
RIGHT-OF-WAY AVG. COST PER MILE	\$	\$	2,432	1,992
<u>MISCELLANEOUS</u>				
INTEREST DURING CONSTRUCTION	\$	\$	14,915	120,368
OVERHEAD	\$	\$	91,107	264,281
OTHER MISCELLANEOUS	\$	\$	1,589	10,298
TOTAL MISCELLANEOUS	\$	\$	107,611	394,947
MISCELLANEOUS % OF THE TOTAL \$	%	%	3.9	6.1
MISCELLANEOUS AVG. COST PER MILE	\$	\$	2,645	6,011
<u>TOTAL COST</u>	\$	\$	2,758,457	6,458,422
TOTAL COST	\$	\$	2,758,457	6,458,422
TOTAL AVG. COST PER MILE	\$	\$	67,792	98,302
<u>COST RANGE PER MILE</u>				
MINIMUM	\$	\$	58,679	78,785
MAXIMUM	\$	\$	104,003	158,185

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

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 Page 47

	14 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	<u>1977</u>	<u>1978</u>	<u>1979</u>
MILES OF PIPE CONSTRUCTED			
COST DATA			
<u>MATERIALS</u>			
<u>TOTAL MATERIALS</u>	\$	\$	\$
MATERIAL % OF THE TOTAL \$	%	%	%
MATERIAL AVG. COST PER MILE			
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
<u>TOTAL ENGINEERING . . .</u>	\$	\$	\$
ENGINEERING . . . % OF THE TOTAL \$	%	%	%
ENGINEERING . . . AVG. COST PER MILE			
<u>LABOR</u>			
<u>TOTAL LABOR</u>	\$	\$	\$
LABOR % OF THE TOTAL \$	%	%	%
LABOR AVG. COST PER MILE			
<u>RIGHT-OF-WAY AND DAMAGES</u>			
<u>TOTAL RIGHT-OF-WAY . . .</u>	\$	\$	\$
RIGHT-OF-WAY . . . % OF THE TOTAL \$	%	%	%
RIGHT-OF-WAY . . . AVG. COST PER MILE			
<u>MISCELLANEOUS</u>			
<u>INTEREST DURING CONSTRUCTION</u>	\$	\$	\$
OVERHEAD			
OTHER MISCELLANEOUS <u>1/</u>			
TOTAL MISCELLANEOUS	\$	\$	\$
MISCELLANEOUS % OF THE TOTAL \$	%	%	%
MISCELLANEOUS AVG. COST PER MILE			
<u>TOTAL COST</u>	\$	\$	\$
<u>TOTAL COST</u>	\$	\$	\$
TOTAL AVG. COST PER MILE			
<u>COST RANGE PER MILE</u>			
<u>MINIMUM</u>	\$	\$	\$
<u>MAXIMUM</u>			

- 1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
 2/ NO REPORTS RECEIVED FOR THIS YEAR.
 3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1976

Table B-2
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16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED
1976

MILES OF PIPE CONSTRUCTED
COST DATA

<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 3,470,835	
MATERIAL % OF THE TOTAL \$	45.5%	
MATERIAL AVG. COST PER MILE	\$ 70,833	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ***	\$ 386,145	
ENGINEERING *** % OF THE TOTAL \$	5.0%	
ENGINEERING *** AVG. COST PER MILE	\$ 7,881	
<u>LABOR</u>		
TOTAL LABOR	\$ 2,805,941	
LABOR % OF THE TOTAL \$	36.8%	
LABOR AVG. COST PER MILE	\$ 57,264	
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY ***	\$ 470,401	
RIGHT-OF-WAY *** % OF THE TOTAL \$	6.2%	
RIGHT-OF-WAY *** AVG. COST PER MILE	\$ 9,600	
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 225,278	
OVERHEAD	\$ 262,270	
OTHER MISCELLANEOUS 1/	\$ 11,176	
TOTAL MISCELLANEOUS	\$ 498,724	
MISCELLANEOUS % OF THE TOTAL \$	6.5%	
MISCELLANEOUS AVG. COST PER MILE	\$ 10,178	
<u>TOTAL COST</u>		
<u>TOTAL COST</u>	\$ 7,632,046	
TOTAL AVG. COST PER MILE	\$ 155,756	
<u>COST RANGE PER MILE</u>		
MINIMUM	\$ 94,580	
MAXIMUM	\$ 272,973	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-2
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		16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
		1977	1978	1979
MILES OF PIPE CONSTRUCTED	COST DATA	126.00	17.60	24.28 4/
<u> MATERIALS</u>				
TOTAL MATERIALS	\$ 5,427,086		1,074,419	1,765,085
MATERIAL % OF THE TOTAL \$	57.5%		40.9	42.4
MATERIAL AVG. COST PER MILE	\$ 43,072		61,047	72,697
<u> ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>				
TOTAL ENGINEERING ***	\$ 261,576		218,454	282,648
ENGINEERING ... % OF THE TOTAL \$	2.8%		8.3	6.8
ENGINEERING ... AVG. COST PER MILE	\$ 2,076		12,412	11,641
<u> LABOR</u>				
TOTAL LABOR	\$ 3,186,118		1,178,961	1,482,706
LABOR % OF THE TOTAL \$	33.7%		44.9	35.7
LABOR AVG. COST PER MILE	\$ 25,287		66,986	61,067
<u> RIGHT-OF-WAY AND DAMAGES</u>				
TOTAL RIGHT-OF-WAY ***	\$ 177,557		89,765	311,379
RIGHT-OF-WAY ... % OF THE TOTAL \$	1.9%		3.4	7.5
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 1,409		5,100	12,825
<u> MISCELLANEOUS</u>				
INTEREST DURING CONSTRUCTION	\$ 98,919		21,299	269,189
OVERHEAD	\$ 291,403		43,797	47,491
OTHER MISCELLANEOUS 1/	\$ 20		--	--
TOTAL MISCELLANEOUS	\$ 390,342		65,096	316,680
MISCELLANEOUS % OF THE TOTAL \$	4.1%		3,699	13,043.6
MISCELLANEOUS AVG. COST PER MILE	\$ 3,098			
<u> TOTAL COST</u>				
TOTAL COST	\$ 9,442,679		2/	4,158,498
TOTAL AVG. COST PER MILE	\$ 74,942		149,244	171,273
<u> COST RANGE PER MILE</u>				
MINIMUM	\$ 72,909			124,442
MAXIMUM	\$ 101,809			248,363

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

4/ INCLUDES 0.98 MILES OF 4 INCH LATERAL PIPELINE.

Table B-2
 COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1976

		<u>20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED</u>
<u>1976</u>		
<u>MILES OF PIPE CONSTRUCTED</u>	<u>COST DATA</u>	
	<u>MATERIALS</u>	
	<u>TOTAL MATERIALS</u>	\$ 490,668
	MATERIAL % OF THE TOTAL \$	\$ 45.7%
	MATERIAL AVG. COST PER MILE	\$ 129,123
	<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>	
	<u>TOTAL ENGINEERING</u>	\$ 96,360
	ENGINEERING % OF THE TOTAL \$	\$ 9.0%
	ENGINEERING AVG. COST PER MILE	\$ 25,358
	<u>LABOR</u>	
	<u>TOTAL LABOR</u>	\$ 410,799
	LABOR % OF THE TOTAL \$	\$ 38.3%
	LABOR AVG. COST PER MILE	\$ 108,105
	<u>RIGHT-OF-WAY AND DAMAGES</u>	
	<u>TOTAL RIGHT-OF-WAY</u>	\$ 19,989
	RIGHT-OF-WAY % OF THE TOTAL \$	\$ 1.8%
	RIGHT-OF-WAY AVG. COST PER MILE	\$ 5,260
	<u>MISCELLANEOUS</u>	
	<u>INTEREST DURING CONSTRUCTION</u>	\$ 39,708
	OVERHEAD	\$ 15,684
	OTHER MISCELLANEOUS 1/	\$ --
	<u>TOTAL MISCELLANEOUS</u>	\$ 55,392
	MISCELLANEOUS % OF THE TOTAL \$	\$ 5.2%
	MISCELLANEOUS AVG. COST PER MILE	\$ 14,577
	<u>TOTAL COST</u>	\$1,073,208
	<u>TOTAL COST</u>	\$ 282,423
	<u>COST RANGE PER MILE</u>	\$ 2/
	MINIMUM	\$
	MAXIMUM	\$

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-2
 Sheet 14 of 17
 Page 51

		20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
		1977	1978
MILES OF PIPE CONSTRUCTED		1979	
COST	DATA		
MATERIALS			
TOTAL MATERIALS	\$ 1,530,509	6,371,325	429,995
MATERIAL % OF THE TOTAL \$	36.3%	51.5	90,146
MATERIAL AVG. COST PER MILE	\$ 79,755	89,699	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ... % OF THE TOTAL \$	\$ 144,599	74,757	100,625
ENGINEERING ... % OF THE TOTAL \$	3.4%	0.6	13.3
ENGINEERING ... AVG. COST PER MILE	\$ 7,535	1,053	21,095
LABOR			
TOTAL LABOR	\$ 1,882,841	4,400,268	142,591
LABOR % OF THE TOTAL \$	44.7%	35.5	18.8
LABOR AVG. COST PER MILE	\$ 98,116	61,949	29,893
RIGHT-OF-WAY AND DAMAGES			
TOTAL RIGHT-OF-WAY ... % OF THE TOTAL \$	\$ 481,200	472,877	33,999
RIGHT-OF-WAY ... % OF THE TOTAL \$	11.4%	3.8	4.5
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 25,076	6,657	7,128
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 78,547	245,344	17,804
OVERHEAD	\$ 100,419	173,546	33,165
OTHER MISCELLANEOUS ^{1/}	\$ --	640,872	--
TOTAL MISCELLANEOUS	\$ 178,966	1,059,762	50,969
MISCELLANEOUS % OF THE TOTAL \$	4.2%	8.6	6.7
MISCELLANEOUS AVG. COST PER MILE	\$ 9,326	14,920	10,685
TOTAL COST	\$ 4,218,115	12,378,989	2/
TOTAL COST	\$ 2,219,808	174,278	758,179
TOTAL AVG. COST PER MILE			158,947
COST RANGE PER MILE			
MINIMUM	\$ 3/	168,709	
MAXIMUM	\$ 196,735		

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

4/ INCLUDES 0.07 MILES OF 18 INCH LATERAL PIPELINE.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

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	24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977	1978	1979
MILES OF PIPE CONSTRUCTED	3.30	8.40	
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$ 610,660	\$ 1,525,846	
MATERIAL % OF THE TOTAL \$	35.0%	50.9	
MATERIAL AVG. COST PER MILE	\$ 185,049	181,648	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ 35,486	280,789	
% OF THE TOTAL \$	2.0%	9.3	
ENGINEERING ... AVG. COST PER MILE	\$ 10,753	33,427	
LABOR			
TOTAL LABOR	\$ 1,018,325	1,106,533	
% OF THE TOTAL \$	58.4%	36.8	
LABOR AVG. COST PER MILE	\$ 308,583	131,730	
RIGHT-OF-WAY AND DAMAGES			
TOTAL RIGHT-OF-WAY ***	\$ 55,574	55,205	
% OF THE TOTAL \$	3.2%	1.8	
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 16,841	6,572	
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 23,757	36,520	
OVERHEAD	\$ 724	--	
OTHER MISCELLANEOUS 1/	\$ --	--	
TOTAL MISCELLANEOUS 1/	\$ 24,481	36,520	
MISCELLANEOUS % OF THE TOTAL \$	1.4%	1.2	
MISCELLANEOUS AVG. COST PER MILE	\$ 7,418	4,348	
TOTAL COST	\$1,744,526	3,004,893	
TOTAL COST	\$ 528,644	357,725	
COST RANGE PER MILE			
MINIMUM	\$ 3/	3/	
MAXIMUM	\$ 3/	3/	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-2
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 Page 53

	30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977	1978	1979
MILES OF PIPE CONSTRUCTED		11.08	24.18
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$	\$	\$
MATERIAL % OF THE TOTAL \$	%	%	%
MATERIAL AVG. COST PER MILE			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING	\$	\$	\$
ENGINEERING % OF THE TOTAL \$	%	%	%
ENGINEERING AVG. COST PER MILE			
LABOR	\$	\$	\$
TOTAL LABOR	\$	\$	\$
LABOR % OF THE TOTAL \$	%	%	%
LABOR AVG. COST PER MILE			
RIGHT-OF-WAY AND DAMAGES			
TOTAL RIGHT-OF-WAY	\$	\$	\$
RIGHT-OF-WAY % OF THE TOTAL \$	%	%	%
RIGHT-OF-WAY AVG. COST PER MILE			
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$	\$	\$
OVERHEAD	\$	\$	\$
OTHER MISCELLANEOUS	\$	\$	\$
TOTAL MISCELLANEOUS	\$	\$	\$
MISCELLANEOUS % OF THE TOTAL \$	%	%	%
MISCELLANEOUS AVG. COST PER MILE			
TOTAL COST	\$	\$	\$
TOTAL COST	\$	\$	\$
TOTAL AVG. COST PER MILE			
COST RANGE PER MILE			
MINIMUM	\$	\$	\$
MAXIMUM	\$	\$	\$

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-2
 Sheet 17 of 17
 Page 54

		36 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
		1977	1978	1979
MILES OF PIPE CONSTRUCTED	COST DATA			
<u> MATERIALS</u>				
TOTAL MATERIALS	\$	\$	\$	\$
MATERIAL % OF THE TOTAL \$	%	%	%	%
MATERIAL AVG. COST PER MILE				
<u> ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>				
TOTAL ENGINEERING ...	\$	\$	\$	\$
ENGINEERING ... % OF THE TOTAL \$	%	%	%	%
ENGINEERING ... AVG. COST PER MILE				
<u> LABOR</u>				
TOTAL LABOR	\$	\$	\$	\$
LABOR % OF THE TOTAL \$	%	%	%	%
LABOR AVG. COST PER MILE				
<u> RIGHT-OF-WAY AND DAMAGES</u>				
TOTAL RIGHT-OF-WAY ...	\$	\$	\$	\$
RIGHT-OF-WAY ... % OF THE TOTAL \$	%	%	%	%
RIGHT-OF-WAY ... AVG. COST PER MILE				
<u> MISCELLANEOUS</u>				
INTEREST DURING CONSTRUCTION	\$	\$	\$	\$
OVERHEAD	\$	\$	\$	\$
OTHER MISCELLANEOUS 1/	\$	\$	\$	\$
TOTAL MISCELLANEOUS				
MISCELLANEOUS % OF THE TOTAL \$	%	%	%	%
MISCELLANEOUS AVG. COST PER MILE				
<u> TOTAL COST</u>				
TOTAL COST	\$	\$	\$	\$
TOTAL AVG. COST PER MILE				
<u> COST RANGE PER MILE</u>				
MINIMUM	\$	\$	\$	\$
MAXIMUM				

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

3/

3/

9,706,591
 710,065

3,819,901
 749,000

3/

3/

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-3
 Sheet 1 of 12
 Page 55

		6 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
		1977	1978
MILES OF PIPE CONSTRUCTED	COST DATA	14.90	6.95
<u> MATERIALS</u>			
TOTAL MATERIALS	\$ 510,447	262,285	355,803
MATERIAL % OF THE TOTAL \$	16.4%	7.8	14.4
MATERIAL AVG. COST PER MILE	\$ 34,258	37,739	110,498
<u> ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$ 179,050	490,677	170,040
ENGINEERING ... % OF THE TOTAL \$	5.7%	14.7	6.9
ENGINEERING ... AVG. COST PER MILE	\$ 12,017	70,601	52,808
<u> LABOR</u>			
TOTAL LABOR	\$ 2,142,714	2,440,217	1,762,977
LABOR % OF THE TOTAL \$	68.8%	72.8	71.3
LABOR AVG. COST PER MILE	\$ 143,806	351,110	547,508
<u> RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY ***	\$ 16,147	38,718	20
RIGHT-OF-WAY ... % OF THE TOTAL \$	0.5%	1.2	0.0
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 1,084	5,571	6
<u> MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 195,023	34,818	81,880
OVERHEAD	\$ 72,909	78,487	98,885
OTHER MISCELLANEOUS 1/	\$ 606	5,251	1,346
TOTAL MISCELLANEOUS	\$ 268,538	118,556	182,111
MISCELLANEOUS % OF THE TOTAL \$	8.6%	3.5	7.4
MISCELLANEOUS AVG. COST PER MILE	\$ 18,023	17,059	56,556
<u> TOTAL COST</u>			
TOTAL COST	\$ 3,116,896	3,350,453	2,470,951
TOTAL AVG. COST PER MILE	\$ 209,188	482,080	767,376
<u> COST RANGE PER MILE</u>			
MINIMUM	\$ 132,813	194,535	3/
MAXIMUM	\$ 255,177	800,122	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-3
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 Page 56

8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED

	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
--	-------------	-------------	-------------	-------------

MILES OF PIPE CONSTRUCTED	12.05 3/			
COST DATA				
<u>MATERIALS</u>				
TOTAL MATERIALS	\$	\$	\$	\$
MATERIAL % OF THE TOTAL \$	%	%	%	%
MATERIAL AVG. COST PER MILE	\$	\$	\$	\$
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>				
TOTAL ENGINEERING	\$	\$	\$	\$
ENGINEERING ... % OF THE TOTAL \$	%	%	%	%
ENGINEERING ... AVG. COST PER MILE	\$	\$	\$	\$
<u>LABOR</u>				
TOTAL LABOR	\$	\$	\$	\$
LABOR % OF THE TOTAL \$	%	%	%	%
LABOR AVG. COST PER MILE	\$	\$	\$	\$
<u>RIGHT-OF-WAY AND DAMAGES</u>				
TOTAL RIGHT-OF-WAY	\$	\$	\$	\$
RIGHT-OF-WAY ... % OF THE TOTAL \$	%	%	%	%
RIGHT-OF-WAY ... AVG. COST PER MILE	\$	\$	\$	\$
<u>MISCELLANEOUS</u>				
INTEREST DURING CONSTRUCTION	\$	\$	\$	\$
OVERHEAD	\$	\$	\$	\$
OTHER MISCELLANEOUS 1/	\$	\$	\$	\$
TOTAL MISCELLANEOUS	\$	\$	\$	\$
MISCELLANEOUS % OF THE TOTAL \$	%	%	%	%
MISCELLANEOUS AVG. COST PER MILE	\$	\$	\$	\$
<u>TOTAL COST</u>				
<u>TOTAL COST</u>	\$	\$	\$	\$
TOTAL AVG. COST PER MILE	\$	\$	\$	\$
<u>COST RANGE PER MILE</u>				
MINIMUM	\$	\$	\$	\$
MAXIMUM	\$	\$	\$	\$

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ INCLUDES 1.90 MILES OF 6 INCH OFFSHORE PIPELINE.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-3
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	10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977	1978	1979
MILES OF PIPE CONSTRUCTED			
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$	\$	\$
MATERIAL % OF THE TOTAL \$	%	%	%
MATERIAL AVG. COST PER MILE	\$	\$	\$
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$	\$	\$
ENGINEERING ... % OF THE TOTAL \$	%	%	%
ENGINEERING ... AVG. COST PER MILE	\$	\$	\$
LABOR			
TOTAL LABOR	\$	\$	\$
LABOR % OF THE TOTAL \$	%	%	%
LABOR AVG. COST PER MILE	\$	\$	\$
RIGHT-OF-WAY AND DAMAGES			
TOTAL RIGHT-OF-WAY ***	\$	\$	\$
RIGHT-OF-WAY ... % OF THE TOTAL \$	%	%	%
RIGHT-OF-WAY ... AVG. COST PER MILE	\$	\$	\$
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION			
OVERHEAD	\$	\$	\$
OTHER MISCELLANEOUS 1/	\$	\$	\$
TOTAL MISCELLANEOUS 1/	\$	\$	\$
MISCELLANEOUS % OF THE TOTAL \$	%	%	%
MISCELLANEOUS AVG. COST PER MILE	\$	\$	\$
TOTAL COST			
TOTAL COST	\$	\$	\$
TOTAL AVG. COST PER MILE	\$	\$	\$
COST RANGE PER MILE			
MINIMUM	2/	2/	2/
MAXIMUM	3/	3/	3/

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

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COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		1977	1978	1979	1980
MILES OF PIPE CONSTRUCTED		45.66 2/	8.75	90.95	30.29
COST DATA					
<u>MATERIALS</u>					
TOTAL MATERIALS		\$ 3,303,738	837,569	10,029,901	3,625,010
MATERIAL % OF THE TOTAL \$		\$ 72,355	17.3	110,279	24.2
MATERIAL AVG. COST PER MILE			95,722		119,677
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>					
TOTAL ENGINEERING		\$ 515,153	106,170	3,449,402	1,278,438
ENGINEERING % OF THE TOTAL \$		\$ 11,282	4.2%	12,134	2.2
ENGINEERING ... AVG. COST PER MILE				37,926	42,207
<u>LABOR</u>					
TOTAL LABOR		\$ 7,283,542	3,552,183	25,011,425	9,517,512
LABOR % OF THE TOTAL \$		\$ 159,517	59.5%	405,964	60.3
LABOR AVG. COST PER MILE				275,002	314,213
<u>RIGHT-OF-WAY AND DAMAGES</u>					
TOTAL RIGHT-OF-WAY		\$ 533	5,324	2,295	530
RIGHT-OF-WAY % OF THE TOTAL \$		\$ 12	0.0%	0.1	0.0
RIGHT-OF-WAY ... AVG. COST PER MILE			608	608	17
<u>MISCELLANEOUS</u>					
INTEREST DURING CONSTRUCTION		\$ 794,573	157,637	1,567,194	728,176
OVERHEAD		\$ 339,508	178,237	1,278,656	515,528
OTHER MISCELLANEOUS 1/		\$ 2,437	—	132,096	4,304
TOTAL MISCELLANEOUS		\$ 1,136,518	335,874	2,977,946	1,248,008
MISCELLANEOUS % OF THE TOTAL \$		\$ 24,891	9.3%	7.0	8.0
MISCELLANEOUS AVG. COST PER MILE			38,386	32,743	41,202
<u>TOTAL COST</u>					
TOTAL COST		\$12,239,484	4,837,120	41,470,969	15,669,498
TOTAL AVG. COST PER MILE		\$ 268,057	552,814	455,975	517,316
<u>COST RANGE PER MILE</u>					
MINIMUM		\$ 233,406	491,295	314,368	481,244
MAXIMUM		\$ 279,453	667,783	665,688	784,746

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ INCLUDES 0.09 MILES OF 6 INCH CONNECTING PIPELINE.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-3
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	<u>14. INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED</u>	<u>1979</u>	<u>1980</u>
MILES OF PIPE CONSTRUCTED	8 . 69	8 . 10	
COST DATA			
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 731,664	\$ 1,947,305	
MATERIAL % OF THE TOTAL \$	80 20 . 3	38 . 1	
MATERIAL AVG. COST PER MILE	\$ 84,196	\$ 138,107	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$ 189,636	\$ 337,416	
ENGINEERING *** % OF THE TOTAL \$	5 . 6	6 . 6	
ENGINEERING *** AVG. COST PER MILE	\$ 21,822	\$ 23,930	
<u>LABOR</u>			
TOTAL LABOR	\$ 2,319,848	\$ 2,074,787	
LABOR % OF THE TOTAL \$	64 . 5	40 . 6	
LABOR AVG. COST PER MILE	\$ 266,956	\$ 147,148	
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY ***	\$ 110,471	\$ 46,470	
RIGHT-OF-WAY *** % OF THE TOTAL \$	3 . 1	0 . 9	
RIGHT-OF-WAY *** AVG. COST PER MILE	\$ 12,713	\$ 3,296	
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 79,750	\$ 278,452	
OVERHEAD	\$ 146,148	\$ 91,617	
OTHER MISCELLANEOUS 1/	\$ 18,819	\$ 338,610	
TOTAL MISCELLANEOUS	\$ 244,717	\$ 708,679	
MISCELLANEOUS % OF THE TOTAL \$	6 . 8	13 . 8	
MISCELLANEOUS AVG. COST PER MILE	\$ 28,161	\$ 50,261	
<u>TOTAL COST</u>			
TOTAL COST	\$ 2 /	\$ 2 /	
TOTAL AVG. COST PER MILE	\$ 3,596,336	\$ 5,114,657	
<u>COST RANGE PER MILE</u>			
MINIMUM	\$ 413,848	\$ 362,742	
MAXIMUM	\$ 3 /	\$ 3 /	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-3
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16. INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED

MILES OF PIPE CONSTRUCTED	COST DATA	1977	1978	1979	1980
<u>MATERIALS</u>					
<u>TOTAL MATERIALS</u>					
MATERIAL % OF THE TOTAL \$	\$ 2,422,544	15,868,327	8,799,851	14,904,549	
MATERIAL AVG. COST PER MILE	25.0%	22.0	29.4	30.6	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>					
<u>TOTAL ENGINEERING</u>					
ENGINEERING ... % OF THE TOTAL \$	\$ 106,396	6,675,913	1,145,087	3,183,858	
ENGINEERING ... AVG. COST PER MILE	1.1%	9.2	3.8	6.6	
<u>LABOR</u>					
<u>TOTAL LABOR</u>					
LABOR % OF THE TOTAL \$	\$ 6,014,542	45,562,757	16,756,948	28,241,462	
LABOR AVG. COST PER MILE	62.0%	63.0	56.0	58.0	
<u>RIGHT-OF-WAY AND DAMAGES</u>					
<u>TOTAL RIGHT-OF-WAY</u>					
RIGHT-OF-WAY ... % OF THE TOTAL \$	\$ 6,474	149,528	96,500	4,299	
RIGHT-OF-WAY ... AVG. COST PER MILE	0.1%	0.2	0.3	0.0	
<u>MISCELLANEOUS</u>					
<u>INTEREST DURING CONSTRUCTION</u>					
OVERHEAD	\$ 227,893	2,478,047	1,499,908	1,043,180	
OTHER MISCELLANEOUS <u>1/</u>	\$ 918,453	1,591,667	1,634,652	1,217,333	
TOTAL MISCELLANEOUS	\$ --	5,191	11,447	65,673	
MISCELLANEOUS % OF THE TOTAL \$	\$ 1,146,346	4,074,905	3,146,007	2,326,186	
MISCELLANEOUS AVG. COST PER MILE	\$ 76,936	5.6	10.5	4.8	
<u>TOTAL COST</u>					
<u>TOTAL COST</u>	\$ 9,696,302	72,331,430	29,944,393	48,660,354	
TOTAL AVG. COST PER MILE	\$ 650,759	585,585	503,352	539,591	
<u>COST RANGE PER MILE</u>					
MINIMUM	\$ 564,313	375,663	369,970	379,207	
MAXIMUM	\$ 698,484	1,097,381	771,073	870,485	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ INCLUDES 0.85 MILES OF 12 INCH OFFSHORE PIPELINE.

3/ INCLUDES 0.70 MILES OF 12 INCH OFFSHORE PIPELINE.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

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	20. INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1977	1978	1979
MILES OF PIPE CONSTRUCTED	32.40	3/	16.76
COST DATA			4/
MATERIALS			
TOTAL MATERIALS	\$ 7,458,000	\$ 3,738,335	\$ 4,831,865
MATERIAL % OF THE TOTAL \$	45.6%	39.0	27.3
MATERIAL AVG. COST PER MILE	\$ 230,185	223,051	192,812
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING	\$ 345,400	\$ 458,618	\$ 844,602
ENGINEERING % OF THE TOTAL \$	2.1%	4.8	4.8
ENGINEERING ... AVG. COST PER MILE	\$ 10,661	27,364	33,703
LABOR			
TOTAL LABOR	\$ 7,081,200	\$ 5,155,796	\$ 10,566,742
LABOR % OF THE TOTAL \$	43.3%	53.8	59.8
LABOR AVG. COST PER MILE	\$ 218,556	307,625	421,657
RIGHT-OF-WAY AND DAMAGES			
TOTAL RIGHT-OF-WAY	\$ 193,600	---	400
RIGHT-OF-WAY % OF THE TOTAL \$	1.2%	---	0.0
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 5,975	---	16
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 241,054	\$ 71,704	\$ 895,192
OVERHEAD	\$ 1,037,127	\$ 154,551	\$ 528,914
OTHER MISCELLANEOUS ^{1/}	\$ --	\$ --	\$ 3,797
TOTAL MISCELLANEOUS	\$ 1,278,181	\$ 226,255	\$ 9,922
MISCELLANEOUS % OF THE TOTAL \$	7.8%	4	1,434,028
MISCELLANEOUS AVG. COST PER MILE	\$ 39,450	13,500	\$ 8.1
TOTAL COST			
TOTAL COST	\$ 16,356,381	\$ 9,579,004	\$ 17,677,637
TOTAL AVG. COST PER MILE	\$ 504,827	\$ 571,540	\$ 705,412
COST RANGE PER MILE			
MINIMUM	\$ 2/	\$ 503,443	\$ 667,829
MAXIMUM	\$ 771,355	\$ 726,292	\$ 2/

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

3/ INCLUDES 9.70 MILES OF 24 INCH OFFSHORE PIPELINE.

4/ INCLUDES 0.38 MILES OF 12 INCH ONSHORE PIPELINE.

5/ INCLUDES 0.30 MILES OF 16 INCH OFFSHORE PIPELINE.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-3
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22 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED

1980

1979

1978

1977

MILES OF PIPE CONSTRUCTED
COST DATA

MATERIALS

<u>TOTAL MATERIALS</u>	
MATERIAL	% OF THE TOTAL \$
MATERIAL AVG.	\$
COST PER MILE	\$

ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY

<u>TOTAL ENGINEERING</u>	
ENGINEERING	% OF THE TOTAL \$
... AVG. COST PER MILE	\$

LABOR

<u>TOTAL LABOR</u>	
LABOR	% OF THE TOTAL \$
AVG. COST PER MILE	\$

RIGHT-OF-WAY AND DAMAGES

<u>TOTAL RIGHT-OF-WAY</u>	
RIGHT-OF-WAY	% OF THE TOTAL \$
... AVG. COST PER MILE	\$

MISCELLANEOUS

<u>INTEREST DURING CONSTRUCTION</u>	
OVERHEAD	\$
OTHER MISCELLANEOUS	1/
TOTAL MISCELLANEOUS	\$
MISCELLANEOUS % OF THE TOTAL \$	\$
MISCELLANEOUS AVG. COST PER MILE	\$

TOTAL COST

<u>TOTAL COST</u>	
TOTAL	Avg. Cost per mile

COST RANGE PER MILE

MINIMUM

MAXIMUM

3/

<u>2/</u>	
TOTAL	Avg. Cost per mile

2/

<u>19,578,834</u>	
429,	360

- 1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.
3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-3
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 Page 63

24. INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED
1977 1978 1979 1980

MILES OF PIPE CONSTRUCTED COST DATA	97.64 3/ COST DATA	31.23 COST DATA	31.57 4/ COST DATA	8.43 COST DATA
<u>MATERIALS</u>				
TOTAL MATERIALS	\$ 20,783,510	6,836,045	8,878,688	2,441,516
MATERIAL % OF THE TOTAL \$	\$ 212,858	36.2%	218,893	27.0
MATERIAL AVG. COST PER MILE			281,238	29.8
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>				
TOTAL ENGINEERING ::.	\$ 2,543,673	1,277,081	2,621,075	642,790
ENGINEERING ... % OF THE TOTAL \$	\$ 26,052	4.4%	40,893	8.0
ENGINEERING ... AVG. COST PER MILE			83,024	7.9
<u>LABOR</u>				
TOTAL LABOR	\$ 28,730,394	20,220,321	18,482,050	4,308,546
LABOR % OF THE TOTAL \$	\$ 294,248	50.1%	647,464	56.2
LABOR AVG. COST PER MILE	\$ 3,846	0.7%	585,431	52.7
<u>RIGHT-OF-WAY AND DAMAGES</u>				
TOTAL RIGHT-OF-WAY ::.	\$ 375,567	149	190	55
RIGHT-OF-WAY ... % OF THE TOTAL \$	\$ 3,846	0.0	0.0	0.0
RIGHT-OF-WAY ... AVG. COST PER MILE		5	6	7
<u>MISCELLANEOUS</u>				
INTEREST DURING CONSTRUCTION	\$ 3,559,122	1,244,100	1,965,045	355,065
OVERHEAD	\$ 1,374,458	577,229	918,968	426,174
OTHER MISCELLANEOUS 1/	\$ 18,485	1,809	17,254	3,751
TOTAL MISCELLANEOUS	\$ 4,952,065	1,823,138	2,901,267	784,990
MISCELLANEOUS % OF THE TOTAL \$	\$ 50,718	8.6%	58,378	8.8
MISCELLANEOUS AVG. COST PER MILE			91,900	9.6
<u>TOTAL COST</u>				
TOTAL COST	\$ 57,385,209	30,156,734	32,883,270	8,177,897
TOTAL AVG. COST PER MILE	\$ 587,722	965,633	1,041,599	970,095
<u>COST RANGE PER MILE</u>				
MINIMUM	\$ 524,906	890,999	930,081	2/
MAXIMUM	\$ 911,169	1,095,651	1,124,913	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

3/ INCLUDES 17.00 MILES OF ONSHORE 24 INCH LATERAL PIPELINE AND 0.53 MILES OF 16 INCH CONNECTING PIPELINE.

4/ INCLUDES 0.08 MILES OF 10 INCH OFFSHORE PIPELINE.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-3
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30. INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED

	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>
MILES OF PIPE CONSTRUCTED	32.92	190.26	51.30	30.60
<u>COST DATA</u>				
<u>MATERIALS</u>				
TOTAL MATERIALS	\$ 10,085,385	51,692,276	19,092,101	13,159,400
MATERIAL % OF THE TOTAL \$	36.8%	32.5	41.8	37.2
MATERIAL AVG. COST PER MILE	\$ 306,360	271,693	372,166	430,046
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>				
<u>TOTAL ENGINEERING</u>	\$ 1,769,081	8,875,743	2,928,559	449,700
ENGINEERING % OF THE TOTAL \$	6.5%	5.6	6.4	1.3
ENGINEERING ... AVG. COST PER MILE	\$ 53,739	46,651	57,087	14,696
<u>LABOR</u>				
<u>TOTAL LABOR</u>	\$ 13,664,556	75,617,469	18,222,558	15,880,000
LABOR % OF THE TOTAL \$	49.8%	47.5	40.0	44.9
LABOR AVG. COST PER MILE	\$ 415,084	397,443	355,215	518,954
<u>RIGHT-OF-WAY AND DAMAGES</u>				
<u>TOTAL RIGHT-OF-WAY</u>	\$ 2,583	5,564	--	10,900
RIGHT-OF-WAY % OF THE TOTAL \$	0.0%	0.0	--	0.0
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 78.	29	--	356
<u>MISCELLANEOUS</u>				
<u>INTEREST DURING CONSTRUCTION</u>	\$ 1,582,968	19,788,265	1,844,968	1,696,025
OVERHEAD	\$ 318,152	3,195,426	3,538,743	4,184,125
OTHER MISCELLANEOUS 1/	\$ --	--	--	--
TOTAL MISCELLANEOUS	\$ 1,901,120	22,983,691	5,383,711	5,880,150
MISCELLANEOUS % OF THE TOTAL \$	6.9%	14.4	11.8	16.6
MISCELLANEOUS AVG. COST PER MILE	\$ 57,750	120,801	104,946	192,162
<u>TOTAL COST</u>				
<u>TOTAL COST</u>	\$ 27,422,725	159,174,743	45,626,929	35,380,150
TOTAL AVG. COST PER MILE	\$ 833,011	836,617	889,414	1,156,214
<u>COST RANGE PER MILE</u>				
<u>MINIMUM</u>	\$ 797,642	710,744	747,860	2/
<u>MAXIMUM</u>	\$ 895,323	1,729,541	1,087,193	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table B-3
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	36. INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1977	1978
MILES OF PIPE CONSTRUCTED	40.70	46.09
COST DATA		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 17,106,055	24,274,383
MATERIAL % OF THE TOTAL \$	\$ 420,296	526,674
MATERIAL AVG. COST PER MILE	46.0%	41.0
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ...	\$ 201,306	3,302,240
ENGINEERING ... % OF THE TOTAL \$	\$ 4,946	71,648
ENGINEERING ... AVG. COST PER MILE	0.5%	5.6
<u>LABOR</u>		
TOTAL LABOR	\$ 14,864,070	20,146,770
LABOR % OF THE TOTAL \$	\$ 365,211	437,118
LABOR AVG. COST PER MILE	40.0%	34.0
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY ...	\$ 235,172	337
RIGHT-OF-WAY ... % OF THE TOTAL \$	\$ 5,778	0.6%
RIGHT-OF-WAY ... AVG. COST PER MILE		0.0
		7
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 2,085,911	8,302,897
OVERHEAD	\$ 2,694,828	3,189,604
OTHER MISCELLANEOUS 1/	\$ 4,780,739	11,492,501
TOTAL MISCELLANEOUS % OF THE TOTAL \$	\$ 117,463	12.9%
MISCELLANEOUS AVG. COST PER MILE		19.4
<u>TOTAL COST</u>		
TOTAL COST	\$ 37,187,342	59,216,231
TOTAL AVG. COST PER MILE	\$ 913,694	1,284,796
<u>COST RANGE PER MILE</u>		
MINIMUM	\$ 3/	1,088,854
MAXIMUM	\$	1,433,679

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

4/ INCLUDES 5.90 MILES OF ONSHORE 36 INCH LATERAL PIPELINE.

2/
 3/
 4/

Table B-3
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COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

		42 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED			
		1977	1978	1979	1980
MILES OF PIPE CONSTRUCTED		95.68			
COST DATA					
<u> MATERIALS</u>					
TOTAL MATERIALS	\$	\$	\$	\$	\$
MATERIAL % OF THE TOTAL \$	%	%	%	%	%
MATERIAL AVG. COST PER MILE	\$	\$	\$	\$	\$
<u> ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>					
TOTAL ENGINEERING ...	\$	\$	\$	\$	\$
ENGINEERING ... % OF THE TOTAL \$	%	%	%	%	%
ENGINEERING ... AVG. COST PER MILE	\$	\$	\$	\$	\$
<u> LABOR</u>					
TOTAL LABOR	\$	\$	\$	\$	\$
LABOR % OF THE TOTAL \$	%	%	%	%	%
LABOR AVG. COST PER MILE	\$	\$	\$	\$	\$
<u> RIGHT-OF-WAY AND DAMAGES</u>					
TOTAL RIGHT-OF-WAY ...	\$	\$	\$	\$	\$
RIGHT-OF-WAY ... % OF THE TOTAL \$	%	%	%	%	%
RIGHT-OF-WAY ... AVG. COST PER MILE	\$	\$	\$	\$	\$
<u> MISCELLANEOUS</u>					
INTEREST DURING CONSTRUCTION	\$	\$	\$	\$	\$
OVERHEAD	\$	\$	\$	\$	\$
OTHER MISCELLANEOUS 1/	\$	\$	\$	\$	\$
TOTAL MISCELLANEOUS	\$	\$	\$	\$	\$
MISCELLANEOUS % OF THE TOTAL \$	%	%	%	%	%
MISCELLANEOUS AVG. COST PER MILE	\$	\$	\$	\$	\$
<u> TOTAL COST</u>					
TOTAL COST	\$	\$	\$	\$	\$
TOTAL AVG. COST PER MILE	\$	\$	\$	\$	\$
<u> COST RANGE PER MILE</u>					
MINIMUM	\$	\$	\$	\$	\$
MAXIMUM	\$	\$	\$	\$	\$

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

	10 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1978	1979	1980
MILES OF PIPE CONSTRUCTED COST DATA	1.00		
 MATERIALS			
TOTAL MATERIALS	\$ 52,044		
MATERIAL % OF THE TOTAL \$		28.2%	
MATERIAL AVG. COST PER MILE	\$ 52,044		
 ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ --		
ENGINEERING % OF THE TOTAL \$		--	%
ENGINEERING ... AVG. COST PER MILE	\$ --		
 LABOR			
TOTAL LABOR	\$ 68,188		
LABOR % OF THE TOTAL \$		36.9%	
LABOR AVG. COST PER MILE	\$ 68,188		
 RIGHT-OF-WAY AND DAMAGES			
TOTAL RIGHT-OF-WAY ***	\$ 12,465		
RIGHT-OF-WAY % OF THE TOTAL \$		6.8%	
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 12,465		
 MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 3,620		
OVERHEAD	\$ 21,667		
OTHER MISCELLANEOUS 1/	\$ 26,652		
TOTAL MISCELLANEOUS \$	\$ 51,939		
MISCELLANEOUS % OF THE TOTAL \$		28.1%	
MISCELLANEOUS AVG. COST PER MILE	\$ 51,939		
 TOTAL COST			
TOTAL COST	\$ 184,636		
TOTAL AVG. COST PER MILE	\$ 184,636		
 COST RANGE PER MILE			
MINIMUM	\$ 3/		
MAXIMUM	\$ 3/		

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-1
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	16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1978	1979	1980
MILES OF PIPE CONSTRUCTED	0.55		
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$ 73,492		
MATERIAL % OF THE TOTAL \$	24.8%		
MATERIAL AVG. COST PER MILE	\$ 133,622		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ 5,548		
ENGINEERING *** % OF THE TOTAL \$	1.9%		
ENGINEERING *** AVG. COST PER MILE	\$ 10,087		
LABOR			
TOTAL LABOR	\$ 174,500		
LABOR % OF THE TOTAL \$	59.0%		
LABOR AVG. COST PER MILE	\$ 317,273		
RIGHT-OF-WAY AND DAMAGES			
TOTAL RIGHT-OF-WAY ***	\$ 16,320		
RIGHT-OF-WAY *** % OF THE TOTAL \$	5.5%		
RIGHT-OF-WAY *** AVG. COST PER MILE	\$ 29,673		
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 7,797		
OVERHEAD	\$ 18,194		
OTHER MISCELLANEOUS 1/	\$ --		
TOTAL MISCELLANEOUS	\$ 25,991		
MISCELLANEOUS % OF THE TOTAL \$	8.8%		
MISCELLANEOUS AVG. COST PER MILE	\$ 47,256		
TOTAL COST			
TOTAL COST	\$ 295,851		
TOTAL AVG. COST PER MILE	\$ 537,911		
COST RANGE PER MILE			
MINIMUM	\$ 3/		
MAXIMUM	\$ 3/		

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-1
Sheet 3 of 5
Page 69

	20 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED		1.95
COST DATA		
MATERIALS		
TOTAL MATERIALS \$	\$	\$
MATERIAL % OF THE TOTAL \$	%	%
MATERIAL AVG. COST PER MILE	\$	\$
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING \$	\$	\$
ENGINEERING % OF THE TOTAL \$	%	%
ENGINEERING ... AVG. COST PER MILE	\$	\$
LABOR		
TOTAL LABOR \$	\$	\$
LABOR % OF THE TOTAL \$	%	%
LABOR AVG. COST PER MILE	\$	\$
RIGHT-OF-WAY AND DAMAGES		
TOTAL RIGHT-OF-WAY \$	\$	\$
RIGHT-OF-WAY % OF THE TOTAL \$	%	%
RIGHT-OF-WAY ... AVG. COST PER MILE	\$	\$
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION		
OVERHEAD		
OTHER MISCELLANEOUS 1/	\$	\$
TOTAL MISCELLANEOUS \$	\$	\$
MISCELLANEOUS % OF THE TOTAL \$	%	%
MISCELLANEOUS AVG. COST PER MILE	\$	\$
TOTAL COST		
TOTAL COST \$	\$	\$
TOTAL AVG. COST PER MILE	2/	2/
COST RANGE PER MILE		
MINIMUM	\$	\$
MAXIMUM	\$	\$

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-1
Sheet 4 of 5
Page 70

	24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED		3.74
<u>COST DATA</u>		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$	\$
MATERIAL % OF THE TOTAL \$	%	39.5
MATERIAL AVG. COST PER MILE	\$	173,915
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ...	\$	88,555
ENGINEERING ... % OF THE TOTAL \$	%	5.4
ENGINEERING ... AVG. COST PER MILE	\$	23,678
<u>LABOR</u>		
TOTAL LABOR	\$	682,292
LABOR % OF THE TOTAL \$	%	41.5
LABOR AVG. COST PER MILE	\$	182,431
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY ...	\$	34,207
RIGHT-OF-WAY ... % OF THE TOTAL \$	%	2.1
RIGHT-OF-WAY ... AVG. COST PER MILE	\$	9,146
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$	145,529
OVERHEAD	\$	44,400
OTHER MISCELLANEOUS 1/	\$	---
TOTAL MISCELLANEOUS	\$	189,929
MISCELLANEOUS % OF THE TOTAL \$	%	11.5
MISCELLANEOUS AVG. COST PER MILE	\$	50,783
<u>TOTAL COST</u>	\$	1,645,423
TOTAL COST	\$	2/
TOTAL AVG. COST PER MILE	\$	439,953
<u>COST RANGE PER MILE</u>		
MINIMUM	\$	384,970
MAXIMUM	\$	470,651

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

COMPARISON OF TRANSMISSION PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-1
Sheet 5 of 5
Page 71

	30 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED		0.86
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 275,262	\$ 34.7
MATERIAL % OF THE TOTAL \$		
MATERIAL AVG. COST PER MILE	\$ 320,072	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING ...	\$ 43,306	\$ 5.4
ENGINEERING ... % OF THE TOTAL \$		
ENGINEERING ... AVG. COST PER MILE	\$ 50,356	
LABOR		
TOTAL LABOR	\$ 415,046	\$ 52.4
LABOR % OF THE TOTAL \$		
LABOR AVG. COST PER MILE	\$ 482,611	
RIGHT-OF-WAY AND DAMAGES		
TOTAL RIGHT-OF-WAY ...	\$ 18,864	\$ 2.4
RIGHT-OF-WAY ... % OF THE TOTAL \$		
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 21,935	
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	\$ 40,246	\$ --
OVERHEAD		\$ --
OTHER MISCELLANEOUS 1/	\$ 40,246	\$ --
TOTAL MISCELLANEOUS		
MISCELLANEOUS % OF THE TOTAL \$	\$ 46,798	\$ 5.1
MISCELLANEOUS AVG. COST PER MILE		
TOTAL COST	\$ 792,724	
TOTAL COST		
TOTAL AVG. COST PER MILE	\$ 921,772	
COST RANGE PER MILE		
MINIMUM	\$ 2/	\$ 2/
MAXIMUM	\$ 3/	\$ 3/

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-2
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Page 72

		2 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
		1978	1979
MILES OF PIPE CONSTRUCTED		1.60	2.92
COST DATA			
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 10,480	22,134	
MATERIAL % OF THE TOTAL \$	42.9%		21.1
MATERIAL AVG. COST PER MILE	\$ 6,550	7,580	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING	\$ 853	6,786	
ENGINEERING ... % OF THE TOTAL \$	3.5%		6.4
ENGINEERING ... AVG. COST PER MILE	\$ 533	2,324	
<u>LABOR</u>			
TOTAL LABOR	\$ 9,051	70,702	
LABOR % OF THE TOTAL \$	31.1%		67.2
LABOR AVG. COST PER MILE	\$ 5,657	24,213	
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY	\$ 2,941	3,434	
RIGHT-OF-WAY ... % OF THE TOTAL \$	12.0%		3.3
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 1,838	1,176	
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 51	487	
OVERHEAD	\$ --	100	
OTHER MISCELLANEOUS 1/	\$ 1,043	1,472	
TOTAL MISCELLANEOUS	\$ 1,094	2,059	
MISCELLANEOUS % OF THE TOTAL \$	4.5%	2.0	
MISCELLANEOUS AVG. COST PER MILE	\$ 684	705	
<u>TOTAL COST</u>			
TOTAL COST	\$ 24,419	105,115	
TOTAL AVG. COST PER MILE	\$ 15,262	35,998	
<u>COST RANGE PER MILE</u>			
MINIMUM	\$ 3/	9,462	
MAXIMUM	\$ 3/	94,074	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

	3 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED	0.29	1.70
<u>COST DATA</u>		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 11,892	21,361
MATERIAL % OF THE TOTAL \$	49.8%	27.0
MATERIAL AVG. COST PER MILE	\$ 41,007	12,565
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ***	\$ 1,705	2,909
ENGINEERING ... % OF THE TOTAL \$	7.1%	3.7
ENGINEERING ... AVG. COST PER MILE	\$ 5,879	1,711
<u>LABOR</u>		
TOTAL LABOR	\$ 9,017	52,331
LABOR % OF THE TOTAL \$	37.8%	66.1
LABOR AVG. COST PER MILE	\$ 31,093	30,783
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY ***	\$ --	926
RIGHT-OF-WAY ... % OF THE TOTAL \$	--	1.2
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ --	545
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 193	164
OVERHEAD	\$ --	--
OTHER MISCELLANEOUS 1/	\$ 1,066	1,436
TOTAL MISCELLANEOUS	\$ 1,259	1,600
MISCELLANEOUS % OF THE TOTAL \$	5.3%	2.0
MISCELLANEOUS AVG. COST PER MILE	\$ 4,342	941
<u>TOTAL COST</u>		
TOTAL COST	\$ 23,873	79,127
TOTAL AVG. COST PER MILE	\$ 82,321	46,545
<u>COST RANGE PER MILE</u>		
MINIMUM	\$ 3/	2/
MAXIMUM	\$ 56,448	56,448

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

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	4 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED	1.65	4.17
COST DATA		4.61
MATERIALS		
TOTAL MATERIALS	\$ 36,484	79,706
MATERIAL % OF THE TOTAL \$	53.5%	30.0
MATERIAL AVG. COST PER MILE	\$ 22,112	19,114
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING . . .	\$ --	7,101
ENGINEERING . . . % OF THE TOTAL \$	--	1,703
ENGINEERING . . . AVG. COST PER MILE	\$ --	2,107
LABOR		
TOTAL LABOR	\$ 21,680	155,041
LABOR % OF THE TOTAL \$	31.8%	58.3
LABOR AVG. COST PER MILE	\$ 13,139	37,180
RIGHT-OF-WAY AND DAMAGES		
TOTAL RIGHT-OF-WAY . . .	\$ 4,329	14,329
RIGHT-OF-WAY . . . % OF THE TOTAL \$.	6.4%	5.4
RIGHT-OF-WAY . . . AVG. COST PER MILE	\$ 2,624	3,436
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	\$ 130	955
OVERHEAD	\$ 5,073	5,448
OTHER MISCELLANEOUS 1/	\$ 454	3,144
TOTAL MISCELLANEOUS % OF THE TOTAL \$	\$ 5,657	9,547
MISCELLANEOUS AVG. COST PER MILE	\$ 3,428	2,290
TOTAL COST		
TOTAL COST	\$ 68,150	265,724
TOTAL AVG. COST PER MILE	\$ 41,303	63,723
COST RANGE PER MILE		
MINIMUM	\$ 2/	37,568
MAXIMUM	\$ 113,335	74,691

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

	<u>6-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED</u>		
	<u>1978</u>	<u>1979</u>	<u>1980</u>

<u>MILES OF PIPE CONSTRUCTED</u>	0.80	6.40	2/
<u>COST DATA</u>			
<u>MATERIALS</u>			
<u>TOTAL MATERIALS</u>	\$ 185,987	183,819	139,993
<u>MATERIAL % OF THE TOTAL \$</u>	56.0%	33.8	22.9
<u>MATERIAL AVG. COST PER MILE</u>	\$ 232,484	28,722	38,566
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
<u>TOTAL ENGINEERING ...</u>	\$ 8,024	44,024	44,975
<u>ENGINEERING ... % OF THE TOTAL \$</u>	2.4%	8.1	7.3
<u>ENGINEERING ... AVG. COST PER MILE</u>	\$ 10,030	6,879	12,390
<u>LABOR</u>			
<u>TOTAL LABOR</u>	\$ 131,255	271,497	331,460
<u>LABOR % OF THE TOTAL \$</u>	39.5%	49.9	54.2
<u>LABOR AVG. COST PER MILE</u>	\$ 164,069	42,421	91,311
<u>RIGHT-OF-WAY AND DAMAGES</u>			
<u>TOTAL RIGHT-OF-WAY ...</u>	\$ 4,076	20,506	38,902
<u>RIGHT-OF-WAY ... % OF THE TOTAL \$</u>	1.2%	3.8	6.4
<u>RIGHT-OF-WAY ... AVG. COST PER MILE</u>	\$ 5,095	3,204	10,717
<u>MISCELLANEOUS</u>			
<u>INTEREST DURING CONSTRUCTION</u>	\$ 2,396	7,704	24,785
<u>OVERHEAD</u>	\$ 692	11,912	20,321
<u>OTHER MISCELLANEOUS 1/</u>	\$ --	4,225	11,305
<u>TOTAL MISCELLANEOUS</u>	\$ 3,088	23,841	56,411
<u>MISCELLANEOUS % OF THE TOTAL \$</u>	0.9%	4.4	9.2
<u>MISCELLANEOUS AVG. COST PER MILE</u>	\$ 3,860	3,725	15,540
<u>TOTAL COST</u>			
<u>TOTAL COST</u>	\$ 332,430	543,687	611,741
<u>TOTAL AVG. COST PER MILE</u>	\$ 415,538	84,951	168,524
<u>COST RANGE PER MILE</u>			
<u>MINIMUM</u>	\$ 62,087	43,164	57,378
<u>MAXIMUM</u>	\$ 651,171	150,146	595,522

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ INCLUDES 0.26 MILES OF 8 INCH LATERAL PIPELINE.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

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	8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED	3.69	5.63
COST DATA	1.35	
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 149,678	255,294
MATERIAL % OF THE TOTAL \$	\$ 40,563	45,345
MATERIAL AVG. COST PER MILE	58.4%	26.0
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING \$	\$ 18,891	49,749
ENGINEERING % OF THE TOTAL \$	7.4%	5.1
ENGINEERING AVG. COST PER MILE	\$ 5,120	8,836
<u>LABOR</u>		
TOTAL LABOR	\$ 38,422	596,485
LABOR % OF THE TOTAL \$	15.0%	60.8
LABOR AVG. COST PER MILE	\$ 10,412	105,948
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY \$	\$ 11,430	26,569
RIGHT-OF-WAY % OF THE TOTAL \$	4.5%	2.7
RIGHT-OF-WAY AVG. COST PER MILE	\$ 3,098	4,719
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 2,241	18,397
OVERTHEAD	\$ 6,559	26,581
OTHER MISCELLANEOUS 1/	\$ 28,839	8,596
TOTAL MISCELLANEOUS \$	\$ 37,639	53,574
MISCELLANEOUS % OF THE TOTAL \$	14.7%	5.4
MISCELLANEOUS AVG. COST PER MILE	\$ 10,200	9,516
<u>TOTAL COST</u>		
TOTAL COST	\$ 256,060	981,671
TOTAL AVG. COST PER MILE	\$ 69,393	174,364
<u>COST RANGE PER MILE</u>		
MINIMUM	\$ 66,329	50,374
MAXIMUM	\$ 74,463	581,916
	2/	2/

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-2
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	10-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED	3.11	0.35
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 157,480	29,258
MATERIAL % OF THE TOTAL \$	58.7%	48.8
MATERIAL AVG. COST PER MILE	\$ 50,637	83,594
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING % OF THE TOTAL \$	\$ 6,005	1,566
ENGINEERING ... AVG. COST PER MILE	\$ 1,931	2.6
ENGINEERING ... AVG. COST PER MILE	\$ 1,931	4,474
LABOR		
TOTAL LABOR	\$ 98,636	25,266
LABOR % OF THE TOTAL \$	36.7%	42.1
LABOR AVG. COST PER MILE	\$ 31,716	72,189
RIGHT-OF-WAY AND DAMAGES		
TOTAL RIGHT-OF-WAY % OF THE TOTAL \$	\$ 5,349	2,875
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 1,720	4.8
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 1,720	8,214
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	\$ 323	1,004
OVERHEAD	\$ 754	32
OTHER MISCELLANEOUS 1/	\$ --	--
TOTAL MISCELLANEOUS 1/	\$ 1,077	1,036
MISCELLANEOUS % OF THE TOTAL \$	\$ 0.4%	1.7
MISCELLANEOUS AVG. COST PER MILE	\$ 346	2,960
TOTAL COST	\$ 268,547	2/
TOTAL COST	\$ 86,350	60,001
TOTAL AVG. COST PER MILE	\$ 86,350	171,431
COST RANGE PER MILE		
MINIMUM	\$ 86,070	3/
MAXIMUM	\$ 90,653	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

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		12 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
		1978	1979
MILES OF PIPE CONSTRUCTED	COST DATA	0.03	2.31
<u>MATERIALS</u>			2.13
TOTAL MATERIALS		\$ 12,128	144,362
MATERIAL % OF THE TOTAL \$		49.6%	59.9
MATERIAL AVG. COST PER MILE		\$ 404,267	62,494
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING		\$ 937	14,179
ENGINEERING % OF THE TOTAL \$		3.8%	5.9
ENGINEERING ... AVG. COST PER MILE		\$ 31,233	6,138
<u>LABOR</u>			
TOTAL LABOR		\$ 8,789	53,285
LABOR % OF THE TOTAL \$		36.0%	22.1
LABOR AVG. COST PER MILE		\$ 292,967	23,067
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY		\$ --	5,158
RIGHT-OF-WAY % OF THE TOTAL \$		--	2.1
RIGHT-OF-WAY ... AVG. COST PER MILE		\$ --	2,233
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION		\$ 1,645	17,994
OVERHEAD		\$ --	1.5
OTHER MISCELLANEOUS 1/		\$ 937	8,448
TOTAL MISCELLANEOUS		\$ 2,582	
MISCELLANEOUS % OF THE TOTAL \$		10.6%	
MISCELLANEOUS AVG. COST PER MILE		\$ 86,066	10,392
<u>TOTAL COST</u>			
TOTAL COST		\$ 24,436	1,196,483
TOTAL AVG. COST PER MILE		\$ 814,533	561,729
<u>COST RANGE PER MILE</u>			
COST MINIMUM		\$ 2/	235,400
COST MAXIMUM		\$ 2/	901,282

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

	16 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED	2.00	
<u>COST DATA</u>		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 128,177	
MATERIAL % OF THE TOTAL \$	\$ 45.7%	
MATERIAL AVG. COST PER MILE	\$ 64,088	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ***	\$ 14,894	
ENGINEERING *** % OF THE TOTAL \$	\$ 5.	3%
ENGINEERING *** AVG. COST PER MILE	\$ 7,447	
<u>LABOR</u>		
TOTAL LABOR	\$ 97,825	
LABOR % OF THE TOTAL \$	\$ 34.8%	
LABOR AVG. COST PER MILE	\$ 48,912	
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY ***	\$ 30,238	
RIGHT-OF-WAY *** % OF THE TOTAL \$	\$ 10.8%	
RIGHT-OF-WAY *** AVG. COST PER MILE	\$ 15,119	
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 4,112	
OVERHEAD	\$ 5,455	
OTHER MISCELLANEOUS 1/	\$ --	
TOTAL MISCELLANEOUS	\$ 9,567	
MISCELLANEOUS % OF THE TOTAL \$	\$ 4,784	3.4%
MISCELLANEOUS AVG. COST PER MILE	\$ 4,784	
<u>TOTAL COST</u>		
TOTAL COST	\$ 280,701	
TOTAL AVG. COST PER MILE	\$ 140,350	
<u>COST RANGE PER MILE</u>		
MINIMUM	\$ 3/	
MAXIMUM	\$ 3/	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

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	18-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED COST DATA	0.92	
<u>MATERIALS</u>		
TOTAL MATERIALS	\$	\$
MATERIAL % OF THE TOTAL \$	0%	0%
MATERIAL AVG. COST PER MILE	153,284 16.9	166,613
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ...	\$	\$
ENGINEERING ... % OF THE TOTAL \$	0%	0%
ENGINEERING ... AVG. COST PER MILE	29,664 3.3	32,243
<u>LABOR</u>		
TOTAL LABOR	\$	\$
LABOR % OF THE TOTAL \$	0%	0%
LABOR AVG. COST PER MILE	621,095 68.6	675,103
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY ...	\$	\$
RIGHT-OF-WAY ... % OF THE TOTAL \$	0%	0%
RIGHT-OF-WAY ... AVG. COST PER MILE	58,338 6.4	63,411
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$	\$
OVERHEAD	\$	\$
OTHER MISCELLANEOUS 1/	\$	\$
TOTAL MISCELLANEOUS % OF THE TOTAL \$	17,552 25,912 --	43,464
MISCELLANEOUS % OF THE TOTAL \$	0%	0%
MISCELLANEOUS AVG. COST PER MILE	4.8	4.8
<u>TOTAL COST</u>	\$	\$
TOTAL COST	2/	2/
TOTAL AVG. COST PER MILE	905,845	984,614
<u>COST RANGE PER MILE</u>		
MINIMUM	\$	\$
MAXIMUM	3/	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

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	20-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED		0.46
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$	\$
MATERIAL % OF THE TOTAL \$	%	%
MATERIAL AVG. COST PER MILE	\$	\$
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING ...	\$	\$
ENGINEERING ... % OF THE TOTAL \$	%	%
ENGINEERING ... AVG. COST PER MILE	\$	\$
LABOR		
TOTAL LABOR	\$	\$
LABOR % OF THE TOTAL \$	%	%
LABOR AVG. COST PER MILE	\$	\$
RIGHT-OF-WAY AND DAMAGES		
TOTAL RIGHT-OF-WAY ...	\$	\$
RIGHT-OF-WAY ... % OF THE TOTAL \$	%	%
RIGHT-OF-WAY ... AVG. COST PER MILE	\$	\$
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION		
OVERHEAD	\$	\$
OTHER MISCELLANEOUS 1/	\$	\$
TOTAL MISCELLANEOUS 2/	\$	\$
MISCELLANEOUS % OF THE TOTAL \$	%	%
MISCELLANEOUS AVG. COST PER MILE	\$	\$
TOTAL COST	\$	\$
TOTAL COST	\$	\$
TOTAL AVG. COST PER MILE	\$	\$
COST RANGE PER MILE		
MINIMUM	2/	2/
MAXIMUM	\$	\$
	3/	3/

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF LATERAL PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-2
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24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED

	<u>1978</u>	<u>1979</u>	<u>1980</u>
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MILES OF PIPE CONSTRUCTED
COST DATA

MATERIALS			
TOTAL MATERIALS	\$	\$	\$
MATERIAL % OF THE TOTAL \$	%	%	%
MATERIAL AVG. COST PER MILE	\$	\$	\$
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ...	\$	\$	\$
ENGINEERING ... % OF THE TOTAL \$	%	%	%
ENGINEERING ... AVG. COST PER MILE	\$	\$	\$
LABOR			
TOTAL LABOR	\$	\$	\$
LABOR % OF THE TOTAL \$	%	%	%
LABOR AVG. COST PER MILE	\$	\$	\$
RIGHT-OF-WAY AND DAMAGES			
TOTAL RIGHT-OF-WAY ...	\$	\$	\$
RIGHT-OF-WAY ... % OF THE TOTAL \$	%	%	%
RIGHT-OF-WAY ... AVG. COST PER MILE	\$	\$	\$
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$	\$	\$
OVERHEAD	\$	\$	\$
OTHER MISCELLANEOUS 1/	\$	\$	\$
TOTAL MISCELLANEOUS	\$	\$	\$
MISCELLANEOUS % OF THE TOTAL \$	%	%	%
MISCELLANEOUS AVG. COST PER MILE	\$	\$	\$
TOTAL COST			
TOTAL COST	\$	\$	\$
TOTAL AVG. COST PER MILE	\$	\$	\$
COST RANGE PER MILE			
MINIMUM	\$	\$	\$
MAXIMUM	\$	\$	\$

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

	<u>3-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED</u>	
	<u>1978</u>	<u>1979</u>
MILES OF PIPE CONSTRUCTED	0.11	
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 20,997	\$ 4,6
MATERIAL % OF THE TOTAL \$	190,882	
MATERIAL AVG. COST PER MILE		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING ...	\$ 11,679	\$ 2,5
ENGINEERING ... % OF THE TOTAL \$	106,173	
ENGINEERING ... AVG. COST PER MILE		
LABOR		
TOTAL LABOR	\$ 407,344	\$ 89.1
LABOR % OF THE TOTAL \$	3,703,127	
LABOR AVG. COST PER MILE		
RIGHT-OF-WAY AND DAMAGES		
TOTAL RIGHT-OF-WAY ...	\$ --	\$ --
RIGHT-OF-WAY ... % OF THE TOTAL \$	17,317	\$ 3.8
RIGHT-OF-WAY ... AVG. COST PER MILE	157,427	
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	\$ 6,823	
OVERHEAD	10,494	
OTHER MISCELLANEOUS 1/	\$ --	
TOTAL MISCELLANEOUS	\$ --	
MISCELLANEOUS % OF THE TOTAL \$		
MISCELLANEOUS AVG. COST PER MILE		
TOTAL COST		
TOTAL COST	\$ 457,337	
TOTAL AVG. COST PER MILE	4,157,609	
COST RANGE PER MILE		
MINIMUM	\$ --	
MAXIMUM	\$ --	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-3
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		6-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
		1978	1979
MILES OF PIPE CONSTRUCTED	COST DATA	1.13	0.81
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 49,530	91,697	108,249
MATERIAL % OF THE TOTAL \$	\$ 43,832	13.0%	12.6
MATERIAL AVG. COST PER MILE		113,206	60,138
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ...	\$ 26,279	36,342	46,609
ENGINEERING ... % OF THE TOTAL \$	\$ 23,256	6.9%	5.1
ENGINEERING ... AVG. COST PER MILE		44,867	25,894
<u>LABOR</u>			
TOTAL LABOR	\$ 261,755	467,348	667,609
LABOR % OF THE TOTAL \$	\$ 231,641	68.7%	65.6
LABOR AVG. COST PER MILE		576,973	370,894
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY ...	\$ 17,265	432	45
RIGHT-OF-WAY ... % OF THE TOTAL \$	\$ 15,279	4.5%	0.1
RIGHT-OF-WAY ... AVG. COST PER MILE		533	25
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 9,350	23,600	13,909
OVERHEAD	\$ 12,527	92,800	21,392
OTHER MISCELLANEOUS 1/	\$ 4,218	--	--
TOTAL MISCELLANEOUS	\$ 26,095	116,400	35,301
MISCELLANEOUS % OF THE TOTAL \$	\$ 23,093	6.9%	4.1
MISCELLANEOUS AVG. COST PER MILE		143,704	19,612
<u>TOTAL COST</u>			
TOTAL COST	\$ 380,924	712,219	857,813
TOTAL AVG. COST PER MILE	\$ 337,101	879,283	476,563
<u>COST RANGE PER MILE</u>			
MINIMUM	\$ 2/		2/
MAXIMUM	\$ 2/		2/

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-3
Sheet 3 of 9
Page 85

	8 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED COST DATA	2.60	1.10
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 335,893	128,952
MATERIAL % OF THE TOTAL \$	5.4%	6.6
MATERIAL AVG. COST PER MILE	\$ 129,190	117,229
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING	\$ 541,219	462,117
ENGINEERING ... % OF THE TOTAL \$	8.8%	23.9
ENGINEERING ... AVG. COST PER MILE	\$ 208,161	420,106
<u>LABOR</u>		
TOTAL LABOR	\$ 5,090,611	1,241,934
LABOR % OF THE TOTAL \$	82.5%	64.2
LABOR AVG. COST PER MILE	\$1,957,927	1,129,031
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY	\$ --	--
RIGHT-OF-WAY ... % OF THE TOTAL \$	--	--
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ --	--
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 76,498	49,589
OVERHEAD	\$ 125,475	52,946
OTHER MISCELLANEOUS 1/	\$ --	--
TOTAL MISCELLANEOUS	\$ 201,973	102,535
MISCELLANEOUS % OF THE TOTAL \$	3.3%	5.3
MISCELLANEOUS AVG. COST PER MILE	\$ 77,682	93,214
<u>TOTAL COST</u>		
TOTAL COST	\$ 6,169,696	2/
TOTAL AVG. COST PER MILE	\$ 2,372,960	1,759,580
<u>COST RANGE PER MILE</u>		
MINIMUM	\$ 3/	3/
MAXIMUM	\$ --	--

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-3
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	10-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED	2.22	1.50
COST DATA		4.92
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 435,910	370,454
MATERIAL % OF THE TOTAL \$	14.5%	8.8
MATERIAL AVG. COST PER MILE	\$ 196,356	246,969
TOTAL ENGINEERING	\$ 346,778	4,752
ENGINEERING % OF THE TOTAL \$	11.6%	0.1
ENGINEERING AVG. COST PER MILE	\$ 156,206	3,168
TOTAL LABOR	\$ 2,130,261	3,653,661
LABOR % OF THE TOTAL \$	70.9%	86.6
LABOR AVG. COST PER MILE	\$ 959,577	2,435,774
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY	\$ 15,741	931
RIGHT-OF-WAY % OF THE TOTAL \$	0.5%	0.0
RIGHT-OF-WAY AVG. COST PER MILE	\$ 7,091	621
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 47,745	191,719
OVERHEAD	\$ 23,457	--
OTHER MISCELLANEOUS 1/	\$ 3,080	--
TOTAL MISCELLANEOUS	\$ 74,282	191,719
MISCELLANEOUS % OF THE TOTAL \$	2.5%	4.5
MISCELLANEOUS AVG. COST PER MILE	\$ 33,460	127,813
TOTAL COST	\$ 3,002,972	4,221,517
TOTAL COST AVG. COST PER MILE	\$ 1,352,690	2,814,345
<u>COST RANGE PER MILE</u>		
MINIMUM	\$ 270,753	2/
MAXIMUM	\$ 3,273,128	3,371,211

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-3
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Page 87

		12-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
		1978	1979
MILES OF PIPE CONSTRUCTED	COST DATA	5.29	7.87
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 1,786,595	1,513,980	395,955
MATERIAL % OF THE TOTAL \$	12.3%	14.3	
MATERIAL AVG. COST PER MILE	\$ 337,730	192,373	158,382
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ...	\$ 816,031	1,265,977	219,488
ENGINEERING ... % OF THE TOTAL \$	5.6%	11.9	8.5
ENGINEERING ... AVG. COST PER MILE	\$ 154,259	160,861	87,795
<u>LABOR</u>			
TOTAL LABOR	\$11,263,589	7,348,082	1,790,631
LABOR % OF THE TOTAL \$	77.4%	69.3	68.9
LABOR AVG. COST PER MILE	\$ 2,129,223	933,683	716,252
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY ...	\$ 295	958	20
RIGHT-OF-WAY ... % OF THE TOTAL \$	0.0%	0.0	0.0
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 56	122	8
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 375,785	155,157	86,007
OVERHEAD	\$ 297,529	316,346	103,870
OTHER MISCELLANEOUS 1/	\$ 5,552	886	1,414
TOTAL MISCELLANEOUS	\$ 678,866	472,389	191,291
MISCELLANEOUS % OF THE TOTAL \$	4.7%	4.5	7.4
MISCELLANEOUS AVG. COST PER MILE	\$ 128,330	60,024	76,517
<u>TOTAL COST</u>			
TOTAL COST	\$14,545,376	10,601,386	2,597,385
TOTAL AVG. COST PER MILE	\$ 2,749,598	1,347,063	1,038,954
<u>COST RANGE PER MILE</u>			
MINIMUM	\$ 1,635,137	832,335	2/
MAXIMUM	\$15,123,952	4,592,534	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-3
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	14-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED	2.81	
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 470,079	
MATERIAL % OF THE TOTAL \$	4.9%	
MATERIAL AVG. COST PER MILE	\$ 167,288	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING ***	\$ 28,457	
ENGINEERING ... % OF THE TOTAL \$	0.3%	
ENGINEERING ... AVG. COST PER MILE	\$ 10,127	
LABOR		
TOTAL LABOR	\$ 8,974,582	
LABOR % OF THE TOTAL \$	93.2%	
LABOR AVG. COST PER MILE	\$ 3,193,801	
RIGHT-OF-WAY AND DAMAGES		
TOTAL RIGHT-OF-WAY ***	\$ 137	
RIGHT-OF-WAY ... % OF THE TOTAL \$	0.0%	
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 49	
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	\$ 146,395	
OVERHEAD	\$ --	
OTHER MISCELLANEOUS 1/	\$ 5,800	
TOTAL MISCELLANEOUS	\$ 152,195	
MISCELLANEOUS % OF THE TOTAL \$	1.6%	
MISCELLANEOUS AVG. COST PER MILE	\$ 54,162	
TOTAL COST		
TOTAL COST	\$ 9,625,450	
TOTAL AVG. COST PER MILE	\$ 3,425,427	
COST RANGE PER MILE		
MINIMUM	\$ 3/	
MAXIMUM	\$ 3/	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-3
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16-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED

MILES OF PIPE CONSTRUCTED
COST DATA

MATERIALS

TOTAL MATERIALS

MATERIAL % OF THE TOTAL \$

MATERIAL AVG. COST PER MILE

ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY

TOTAL ENGINEERING ...

% OF THE TOTAL \$

ENGINEERING ... AVG. COST PER MILE

LABOR

TOTAL LABOR

LABOR % OF THE TOTAL \$

LABOR AVG. COST PER MILE

RIGHT-OF-WAY AND DAMAGES

TOTAL RIGHT-OF-WAY ...

% OF THE TOTAL \$

RIGHT-OF-WAY ... AVG. COST PER MILE

MISCELLANEOUS

INTEREST DURING CONSTRUCTION

OVERHEAD

OTHER MISCELLANEOUS 1/

TOTAL MISCELLANEOUS

% OF THE TOTAL \$

MISCELLANEOUS AVG. COST PER MILE

TOTAL COST

TOTAL COST

TOTAL AVG. COST PER MILE

COST RANGE PER MILE

MINIMUM

MAXIMUM

6.73 0.21 1.46

\$ 2,330,487 241,822 765,238
\$ 346,283 15.0% 1,151,533 9.3
524,136

\$ 923,984 1,912 256,814
\$ 137,293 6.0% 9,105 3.1
175,900

\$ 11,307,930 1,643,022 6,396,490
\$ 1,680,227 73.0% 83.1 77.6
4,381,157

\$ 972 776 500
145 0.0% 0.0
3,695 342

\$ 653,482 89,807 250,868
\$ 267,438 -- 566,150
\$ -- -- 10,603
\$ 920,920 89,807 827,621
\$ 136,838 4.6 10.0
427,653 566,864

\$ 15,484,293 1,977,339 8,246,663
\$ 2,300,786 9,415,900 5,648,399
2/ 3,440,957
\$ 8,375,733 8,890,898

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-3
Sheet 8 of 9
Page 90

	20-INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED		
	1978	1979	1980
MILES OF PIPE CONSTRUCTED	2.78		
<u>COST DATA</u>			
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 1,641,840		
MATERIAL % OF THE TOTAL \$	17.8%		
MATERIAL AVG. COST PER MILE	\$ 590,590		
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$ 291,450		
ENGINEERING ... % OF THE TOTAL \$	3.2%		
ENGINEERING ... AVG. COST PER MILE	\$ 104,838		
<u>LABOR</u>			
TOTAL LABOR	\$ 7,030,398		
LABOR % OF THE TOTAL \$	76.1%		
LABOR AVG. COST PER MILE	\$ 2,528,920		
<u>RIGHT-OF-WAY AND DAMAGES</u>			
TOTAL RIGHT-OF-WAY ***	\$ 264		
RIGHT-OF-WAY ... % OF THE TOTAL \$	0.0%		
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ 95		
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 180,243		
OVERHEAD	\$ 87,354		
OTHER MISCELLANEOUS 1/	\$ 926		
TOTAL MISCELLANEOUS	\$ 268,523		
MISCELLANEOUS % OF THE TOTAL \$	2.9%		
MISCELLANEOUS AVG. COST PER MILE	\$ 96,591		
<u>TOTAL COST</u>			
TOTAL COST	\$ 9,232,475		
TOTAL AVG. COST PER MILE	\$ 3,321,034		
<u>COST RANGE PER MILE</u>			
MINIMUM	\$ 1,781,528		
MAXIMUM	\$ 41,724,514		

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.

COMPARISON OF OFFSHORE PIPELINE CONSTRUCTION COSTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
REPORTED FROM CONSTRUCTION ENDING IN 1978 THROUGH 1980

Table C-3
Sheet 9 of 9
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	24 INCH DIAMETER PIPE AND THE YEAR CONSTRUCTION ENDED	
	1978	1979
MILES OF PIPE CONSTRUCTED	2.29	
<u>COST DATA</u>		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 844,289	\$ 844,289
MATERIAL % OF THE TOTAL \$	18.7%	18.7%
MATERIAL AVG. COST PER MILE	\$ 368,685	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ...	\$ 208,667	
ENGINEERING ... % OF THE TOTAL \$	4.6%	
ENGINEERING ... AVG. COST PER MILE	\$ 91,121	
<u>LABOR</u>		
TOTAL LABOR	\$ 3,218,702	
LABOR % OF THE TOTAL \$	71.2%	
LABOR AVG. COST PER MILE	\$ 1,405,547	
<u>RIGHT-OF-WAY AND DAMAGES</u>		
TOTAL RIGHT-OF-WAY ...	\$ --	
RIGHT-OF-WAY ... % OF THE TOTAL \$	--	
RIGHT-OF-WAY ... AVG. COST PER MILE	\$ --	
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 114,385	
OVERHEAD	\$ 131,833	
OTHER MISCELLANEOUS 1/	\$ 1,473	
TOTAL MISCELLANEOUS \$	\$ 247,691	
MISCELLANEOUS % OF THE TOTAL \$	5.5%	
MISCELLANEOUS AVG. COST PER MILE	\$ 108,162	
<u>TOTAL COST</u>		
TOTAL COST	\$ 4,519,349	
TOTAL AVG. COST PER MILE	\$ 1,973,515	
<u>COST RANGE PER MILE</u>		
MINIMUM	\$ --	
MAXIMUM	\$ 3/	

1/ CONSISTS OF CONTINGENCIES, FRANCHISES, CONSENTS, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

2/

2/

3/

Table D
Sheet 1 of 1
Page 92

COMPRESSION CONSTRUCTION AND EXPENDITURES
CONSTRUCTION ENDING IN 1976 THROUGH 1980

YEAR CONSTRUCTION ENDED	ONSHORE HORSEPOWER	ONSHORE EXPENDITURES	AVG. COST			OFFSHORE EXPENDITURES	TOTAL HORSEPOWER	AVG. COST			TOTAL EXPENDITURES	AVG. COST PER HORSEPOWER
			PER HORSEPOWER	HORSEPOWER	PER HORSEPOWER			PER HORSEPOWER	TOTAL HORSEPOWER	PER HORSEPOWER		
1976	77,174	\$ 44,440,969	\$ 576	11,400	\$ 10,253,367	\$ 899	88	\$ 574	\$ 54,694,336	\$ 617		
1977	63,040	27,645,993	439	15,150	8,613,065	569	78	190	36,259,058	464		
1978	120,392	82,864,340	688	69,100	148,786,139	2,153	189	492	231,650,479	1,222		
1979	52,988	41,361,129	781	5,000	5,658,210	1,132	57	988	47,019,339	811		
1980	107,268	108,178,940	1,008	4,200	2,918,884	695	111	468	111,097,824	997		

COMPARISON OF CONSTRUCTION COSTS FOR
TRANSMISSION COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table E-1
Sheet 1 of 2
Page 93

DESCRIPTIVE DATA	NEW TRANSMISSION COMPRESSOR STATIONS		
	1977	1978	1980
NUMBER OF UNITS	1	8	1
TOTAL HORSEPOWER	2,000	11,991	40
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$ 615,787	\$ 3,390,178	\$ 21,029
MATERIAL % OF THE TOTAL \$	30.2%	20.6	64.0
MATERIAL AVG. COST PER HORSEPOWER	\$ 308	\$ 283	\$ 526
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ 98,378	\$ 278,194	---
ENGINEERING *** % OF THE TOTAL \$	4.8%	1.7	2.1
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 49	\$ 23	\$ 20
LABOR			
TOTAL LABOR	\$ 993,609	\$ 11,940,138	\$ 11,690
LABOR % OF THE TOTAL \$	48.8%	72.6	35.5
LABOR AVG. COST PER HORSEPOWER	\$ 497	\$ 996	\$ 292
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 140,902	\$ 313,311	---
OVERHEAD	\$ 186,405	\$ 315,464	165
OTHER MISCELLANEOUS 1/	\$ 1,263	\$ 214,814	---
TOTAL MISCELLANEOUS % OF THE TOTAL \$	\$ 328,570	\$ 843,589	165
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 164	\$ 5.1	0.5
TOTAL COST	\$ 2,036,344	\$ 16,452,099	\$ 32,884
TOTAL COST TOTAL AVG. COST PER HORSEPOWER	\$ 1,018	\$ 1,372	\$ 822
COST RANGE PER HORSEPOWER			
MINIMUM	\$ 2/	\$ 360	2/
MAXIMUM		1,630	885
			920

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS,
2/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF CONSTRUCTION COSTS FOR
TRANSMISSION COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

DESCRIPTIVE DATA		ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS		
		1977	1978	1979
NUMBER OF UNITS	2		5	3
TOTAL HORSEPOWER	2,200	13,500	6,400	1,250
<u>COST DATA</u>				
MATERIALS				
TOTAL MATERIALS	\$ 752,316	4,075,498	2,176,613	1,670,480
MATERIAL % OF THE TOTAL \$	40.9%	25.7	31.0	54.6
MATERIAL AVG. COST PER HORSEPOWER	\$ 342	302	340	743
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ...	\$ 79,217	188,264	171,877	116,183
ENGINEERING ... % OF THE TOTAL \$	4.3%	1.2	2.4	3.8
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 36	14	27	52
LABOR				
TOTAL LABOR	\$ 899,024	11,053,057	4,382,036	1,103,050
LABOR % OF THE TOTAL \$	48.9%	69.7	62.4	36.0
LABOR AVG. COST PER HORSEPOWER	\$ 408	819	684	490
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	\$ 65,005	232,641	139,600	84,128
OVERHEAD	\$ 44,421	308,601	131,892	87,676
OTHER MISCELLANEOUS 1/	\$ --	--	21,918	--
TOTAL MISCELLANEOUS	\$ 109,426	541,242	293,410	171,804
MISCELLANEOUS % OF THE TOTAL \$	5.9%	3.4	4.2	5.6
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 50	40	46	76
TOTAL COST				
TOTAL COST	\$ 1,839,983	15,858,061	7,023,936	3,061,517
TOTAL AVG. COST PER HORSEPOWER	\$ 836	1,175	1,097	1,361
COST RANGE PER HORSEPOWER				
MINIMUM	\$ 2/	2/	329	1,690
MAXIMUM	\$ 2/	2/	329	1,690

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ ONE REPORT RECEIVED FOR THIS YEAR.

Table E-2
Sheet 1 of 2
Page 95

COMPARISON OF CONSTRUCTION COSTS FOR
TRANSMISSION COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

DESCRIPTIVE DATA	NUMBER OF UNITS	NEW TRANSMISSION COMPRESSOR STATIONS		1980
		1977	1978	
NUMBER OF UNITS	1			6
TOTAL HORSEPOWER	27,550			20,300
COST DATA				
MATERIALS				
TOTAL MATERIALS		\$ 5,294,469	48.0%	12,832,075
MATERIAL % OF THE TOTAL \$		\$ 192		49.4%
MATERIAL AVG. COST PER HORSEPOWER				632
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING . . .		\$ --	0%	3,412,895
ENGINEERING . . . % OF THE TOTAL \$		\$ --		13.2%
ENGINEERING . . . AVG. COST PER HORSEPOWER		\$ --		168
LABOR				
TOTAL LABOR		\$ 4,836,144	43.8%	7,680,227
LABOR % OF THE TOTAL \$		\$ 176		29.6%
LABOR AVG. COST PER HORSEPOWER				378
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION		\$ 904,659		911,331
OVERTREAD		\$ --		525,099
OTHER MISCELLANEOUS 1/		\$ 3,847		601,557
TOTAL MISCELLANEOUS		\$ 908,506		2,037,987
MISCELLANEOUS % OF THE TOTAL \$		\$ 8.2%		7.8%
MISCELLANEOUS AVG. COST PER HORSEPOWER		\$ 33		101
TOTAL COST		\$11,039,119		
TOTAL AVG. COST PER HORSEPOWER		\$ 401		
COST RANGE PER HORSEPOWER				
MINIMUM		\$ 3/		25,963,184
MAXIMUM		\$ 3/		1,279
				955
				1,698

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF CONSTRUCTION COSTS FOR
TRANSMISSION COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table E-2
Sheet 2 of 2
Page 96

DESCRIPTIVE DATA	ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS		
	1977	1978	1979
NUMBER OF UNITS	2	3	9
TOTAL HORSEPOWER	6,800	11,205	25,090
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$2,765,559	2,320,183	8,020,656
MATERIAL % OF THE TOTAL \$	58.3%	67.0	63.0
MATERIAL AVG. COST PER HORSEPOWER	\$ 407	207	320
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ...	\$ 811,495	140,225	750,514
ENGINEERING ... % OF THE TOTAL \$	17.1%	4.0	5.9
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 119	12	30
LABOR			
TOTAL LABOR	\$1,042,943	758,427	2,598,145
LABOR % OF THE TOTAL \$	22.0%	21.9	20.4
LABOR AVG. COST PER HORSEPOWER	\$ 153	68	103
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 126,254	93,913	351,411
OVERHEAD	\$ --	145,309	885,802
OTHER MISCELLANEOUS 1/	\$ --	6,242	121,884
TOTAL MISCELLANEOUS	\$ 126,254	245,464	1,359,097
MISCELLANEOUS % OF THE TOTAL \$	2.6%	7.1	10.7
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 19	22	54
TOTAL COST			
TOTAL COST	\$4,746,251	3,464,299	12,728,412
TOTAL AVG. COST PER HORSEPOWER	\$ 698	309	507
COST RANGE PER HORSEPOWER			
MINIMUM	\$ 3/	3/	455
MAXIMUM	\$ 614		614

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.
3/ ONE REPORT RECEIVED FOR THIS YEAR.

TRANSMISSION COMPRESSOR STATIONS WITH ELECTRIC MOTOR DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

DESCRIPTIVE DATA	1977		1979		1980
	NEW TRANSMISSION	COMPRESSOR STATIONS	1978	1979	
NUMBER OF UNITS					
TOTAL HORSEPOWER					
COST DATA					
MATERIALS					
TOTAL MATERIALS	\$	\$	\$	\$	
MATERIAL % OF THE TOTAL \$	%	%	%	%	
MATERIAL AVG. COST PER HORSEPOWER	\$	\$	\$	\$	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING . . .	\$	\$	\$	\$	
ENGINEERING . . . % OF THE TOTAL \$	%	%	%	%	
ENGINEERING . . . AVG. COST PER HORSEPOWER	\$	\$	\$	\$	
LABOR					
TOTAL LABOR	\$	\$	\$	\$	
LABOR % OF THE TOTAL \$	%	%	%	%	
LABOR AVG. COST PER HORSEPOWER	\$	\$	\$	\$	
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	\$	\$	\$	\$	
OVERHEAD	\$	\$	\$	\$	
OTHER MISCELLANEOUS 1/	\$	\$	\$	\$	
TOTAL MISCELLANEOUS % OF THE TOTAL \$	%	%	%	%	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	\$	\$	\$	
TOTAL COST	\$	\$	\$	\$	
TOTAL COST	\$	\$	\$	\$	
TOTAL AYG. COST PER HORSEPOWER	\$	\$	\$	\$	
COST RANGE PER HORSEPOWER					
MINIMUM	\$	\$	\$	\$	
MAXIMUM	\$	\$	\$	\$	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
 2/ NO REPORTS RECEIVED FOR THIS YEAR.
 3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF CONSTRUCTION COSTS FOR
TRANSMISSION COMPRESSOR STATIONS WITH ELECTRIC MOTOR DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

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DESCRIPTIVE DATA		ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS		
		1977	1978	1979
NUMBER OF UNITS				
TOTAL HORSEPOWER				
COST DATA				
MATERIALS				
TOTAL MATERIALS	\$	\$	\$	\$
MATERIAL % OF THE TOTAL \$				
MATERIAL AVG. COST PER HORSEPOWER	\$	\$	\$	\$
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ***	\$	\$	\$	\$
ENGINEERING *** % OF THE TOTAL \$				
ENGINEERING ... AVG. COST PER HORSEPOWER	\$	\$	\$	\$
LABOR				
TOTAL LABOR	\$	\$	\$	\$
LABOR % OF THE TOTAL \$				
LABOR AVG. COST PER HORSEPOWER	\$	\$	\$	\$
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	\$	\$	\$	\$
OVERHEAD	\$	\$	\$	\$
OTHER MISCELLANEOUS 1/	\$	\$	\$	\$
TOTAL MISCELLANEOUS	\$	\$	\$	\$
MISCELLANEOUS % OF THE TOTAL \$				
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	\$	\$	\$
TOTAL COST				
TOTAL COST	\$	\$	\$	\$
TOTAL AVG. COST PER HORSEPOWER	2/	2/	2/	2/
COST RANGE PER HORSEPOWER				
MINIMUM	\$	\$	\$	\$
MAXIMUM	\$	\$	\$	\$

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.

FIELD COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1976

DESCRIPTIVE DATA		NEW FIELD COMPRESSOR STATIONS	
NUMBER OF UNITS	TOTAL HORSEPOWER	1976	
<u>COST DATA</u>			
<u>MATERIALS</u>			
<u>TOTAL MATERIALS</u>		\$ 5,748,661	
MATERIAL % OF THE TOTAL \$		66.6%	
MATERIAL AVG. COST PER HORSEPOWER		\$ 364	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
<u>TOTAL ENGINEERING ::.</u>		\$ 337,132	
ENGINEERING :: % OF THE TOTAL \$		3.9%	
ENGINEERING ... AVG. COST PER HORSEPOWER		\$ 21	
<u>LABOR</u>			
<u>TOTAL LABOR</u>		\$ 2,114,276	
LABOR % OF THE TOTAL \$		24.5%	
LABOR AVG. COST PER HORSEPOWER		\$ 134	
<u>MISCELLANEOUS</u>			
<u>INTEREST DURING CONSTRUCTION</u>		\$ 234,934	
OVERHEAD		\$ 166,036	
OTHER MISCELLANEOUS 1/		\$ 34,904	
TOTAL MISCELLANEOUS		\$ 435,874	
MISCELLANEOUS % OF THE TOTAL \$		5.0%	
MISCELLANEOUS AVG. COST PER HORSEPOWER		\$ 28	
<u>TOTAL COST</u>			
<u>TOTAL COST</u>		\$ 8,635,943	
TOTAL AVG. COST PER HORSEPOWER		\$ 547	
<u>COST RANGE PER HORSEPOWER</u>			
MINIMUM		\$ 446	
MAXIMUM		\$ 808	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table F-1
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		NEW FIELD COMPRESSOR STATIONS	
		<u>1977</u>	<u>1979</u>
		<u>1978</u>	<u>1979</u>
DESCRIPTIVE DATA			
NUMBER OF UNITS	10	10	6
TOTAL HORSEPOWER	8,471	4,988	12,756
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$ 3,557,605	2,426,451	8,686,147
MATERIAL % OF THE TOTAL \$	8%	54.1%	64.7%
MATERIAL AVG. COST PER HORSEPOWER	420	487	681
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ 281,121	144,952	1,314,221
ENGINEERING *** % OF THE TOTAL \$	8%	4.3%	3.4%
ENGINEERING ... AVG. COST PER HORSEPOWER	33	29	103
LABOR			
TOTAL LABOR	\$ 2,315,339	1,342,076	2,490,700
LABOR % OF THE TOTAL \$	8%	35.2%	31.6%
LABOR AVG. COST PER HORSEPOWER	273	269	195
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 149,684	122,734	600,792
OVERHEAD	\$ 237,272	142,546	313,929
OTHER MISCELLANEOUS 1/	\$ 33,699	70,225	30,625
TOTAL MISCELLANEOUS 1/	\$ 420,655	335,505	945,346
MISCELLANEOUS % OF THE TOTAL \$	8%	6.4%	7.0%
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 50	67	74
TOTAL COST	\$ 6,574,720	4,248,984	13,436,414
TOTAL COST PER HORSEPOWER	776	852	1,053
COST RANGE PER HORSEPOWER			
MINIMUM	\$ 266	770	538
MAXIMUM	\$ 3,082	1,096	1,672

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.

Table F-1
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COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1976

DESCRIPTIVE DATA		ADDITIONS TO FIELD COMPRESSOR STATIONS <u>1976</u>
NUMBER OF UNITS	TOTAL HORSEPOWER	
21	21,704	
COST DATA		
MATERIALS		
TOTAL MATERIALS		\$ 8,983,058
MATERIAL % OF THE TOTAL \$		72.5%
MATERIAL AVG. COST PER HORSEPOWER		\$ 414
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING ***		\$ 766,533
ENGINEERING *** % OF THE TOTAL \$		6.2%
ENGINEERING ... AVG. COST PER HORSEPOWER		\$ 35
LABOR		
TOTAL LABOR		\$ 2,040,431
LABOR % OF THE TOTAL \$		16.5%
LABOR AVG. COST PER HORSEPOWER		\$ 94
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION		\$ 261,789
OVERHEAD		\$ 323,084
OTHER MISCELLANEOUS 1/		\$ 12,221
TOTAL MISCELLANEOUS		\$ 597,094
MISCELLANEOUS % OF THE TOTAL \$		4.8%
MISCELLANEOUS AVG. COST PER HORSEPOWER		\$ 28
TOTAL COST		\$ 12,387,116
TOTAL COST TOTAL AVG. COST PER HORSEPOWER		\$ 571
COST RANGE PER HORSEPOWER		
MINIMUM		\$ 308
MAXIMUM		\$ 777

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table F-1
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DESCRIPTIVE DATA	1977		ADDITIONS TO FIELD COMPRESSOR STATIONS		1980	
	1978	1979	1978	1979	1980	
NUMBER OF UNITS	5	17	32	17	9	14
TOTAL HORSEPOWER	7,600	32,866				9,372
<u>COST DATA</u>						
MATERIALS						
TOTAL MATERIALS	\$	\$	3,354,071	16,300,519	4,599,112	
MATERIAL % OF THE TOTAL	%	%	71.7	71.3	83.7	
MATERIAL AVG. COST PER HORSEPOWER	\$	\$	441	496	491	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY						
TOTAL ENGINEERING	\$	\$	362,930	771,383	190,067	
ENGINEERING % OF THE TOTAL	%	%	7.7	3.4	3.5	
ENGINEERING ... AVG. COST PER HORSEPOWER	\$	\$	48	23	20	
LABOR						
TOTAL LABOR	\$	\$	597,978	4,060,401	495,936	
LABOR % OF THE TOTAL	%	%	12.8	17.8	9.0	
LABOR AVG. COST PER HORSEPOWER	\$	\$	79	124	53	
MISCELLANEOUS						
INTEREST DURING CONSTRUCTION	\$	\$	196,172	664,429	119,732	
OVERHEAD	\$	\$	168,307	948,149	82,353	
OTHER MISCELLANEOUS ^{1/}	\$	\$	—	100,919	8,413	
TOTAL MISCELLANEOUS	\$	\$	364,479	1,713,497	210,498	
MISCELLANEOUS % OF THE TOTAL	%	%	7.8	7.5	3.8	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	\$	48	52	22	
TOTAL COST	\$	\$	4,679,458	22,845,800	5,495,613	
TOTAL COST	\$	\$	616	695	586	
TOTAL AVG. COST PER HORSEPOWER	\$	\$				
COST RANGE PER HORSEPOWER						
MINIMUM	\$	\$	507	496	498	
MAXIMUM	\$	\$	752	1,337	726	

^{1/} CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
^{2/} NO REPORTS RECEIVED FOR THIS YEAR.

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1976

Table F-2
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Page 103

DESCRIPTIVE DATA		NEW FIELD COMPRESSOR STATIONS	
		1976	
COST DATA	NUMBER OF UNITS		
MATERIALS			
TOTAL MATERIALS		\$ 1,835,965	
MATERIAL % OF THE TOTAL \$		71.0%	
MATERIAL AVG. COST PER HORSEPOWER		\$ 471	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***		\$ 101,759	
ENGINEERING *** % OF THE TOTAL \$		3.9%	
ENGINEERING *** AVG. COST PER HORSEPOWER		\$ 26	
LABOR			
TOTAL LABOR		\$ 507,883	
LABOR % OF THE TOTAL \$		19.7%	
LABOR AVG. COST PER HORSEPOWER		\$ 130	
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION		\$ 53,998	
OVERHEAD		\$ 60,542	
OTHER MISCELLANEOUS 1/		\$ 23,971	
TOTAL MISCELLANEOUS		\$ 138,511	
MISCELLANEOUS % OF THE TOTAL \$		5.4%	
MISCELLANEOUS AVG. COST PER HORSEPOWER		\$ 36	
TOTAL COST		\$ 2,584,118	
TOTAL COST		\$ 663	
TOTAL AVG. COST PER HORSEPOWER			
COST RANGE PER HORSEPOWER			
MINIMUM		\$ 192	
MAXIMUM		\$ 915	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTIONS ENDING IN 1977 THROUGH 1980

DESCRIPTIVE DATA		NEW FIELD COMPRESSOR STATIONS	
COST DATA		1978	1979
NUMBER OF UNITS	TOTAL HORSEPOWER	1977	1980
MATERIALS			
TOTAL MATERIALS	\$	\$	
MATERIAL % OF THE TOTAL \$			
MATERIAL AVG. COST PER HORSEPOWER	\$	\$	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ...	\$	\$	
ENGINEERING ... % OF THE TOTAL \$			
ENGINEERING ... AVG. COST PER HORSEPOWER	\$	\$	
LABOR			
TOTAL LABOR	\$	\$	
LABOR % OF THE TOTAL \$			
LABOR AVG. COST PER HORSEPOWER	\$	\$	
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$	\$	
OVERHEAD	\$	\$	
OTHER MISCELLANEOUS 1/	\$	\$	
TOTAL MISCELLANEOUS	\$	\$	
MISCELLANEOUS % OF THE TOTAL \$			
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	\$	
TOTAL COST	\$	\$	
TOTAL COST	\$	\$	
TOTAL AVG. COST PER HORSEPOWER	\$	\$	
COST RANGE PER HORSEPOWER			
MINIMUM	\$	\$	
MAXIMUM	\$	\$	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF CONSTRUCTION COSTS FOR
FIELD COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1976

DESCRIPTIVE DATA		ADDITIONS TO FIELD COMPRESSOR STATIONS	
COST DATA		1976	
MATERIALS			
TOTAL MATERIALS		\$ 2,922,526	
MATERIAL % OF THE TOTAL \$		57.1%	
MATERIAL AVG. COST PER HORSEPOWER		\$ 244	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ::.		\$ 56,796	
ENGINEERING :: % OF THE TOTAL \$		1.1%	
ENGINEERING ... AVG. COST PER HORSEPOWER		\$ 5	
LABOR			
TOTAL LABOR		\$ 1,836,411	
LABOR % OF THE TOTAL \$		35.9%	
LABOR AVG. COST PER HORSEPOWER		\$ 153	
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION		\$ 182,541	
OVERHEAD		\$ 122,151	
OTHER MISCELLANEOUS 1/		\$ --	
TOTAL MISCELLANEOUS		\$ 304,692	
MISCELLANEOUS % OF THE TOTAL \$		5.9%	
MISCELLANEOUS AVG. COST PER HORSEPOWER		\$ 25	
TOTAL COST			
TOTAL COST		\$ 5,120,425	
TOTAL AVG. COST PER HORSEPOWER		\$ 427	
COST RANGE PER HORSEPOWER			
MINIMUM		\$ 2/	
MAXIMUM		\$ --	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

FIELD COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table F-2
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DESCRIPTIVE DATA	ADDITIONS TO FIELD COMPRESSOR STATIONS	
	1977	1978
NUMBER OF UNITS		
TOTAL HORSEPOWER	3,830	1
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 1,077,496	\$ 1,638,978
MATERIAL % OF THE TOTAL \$	64.6	42.4
MATERIAL AVG. COST PER HORSEPOWER	281	349
376		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING ***	\$ --	\$ 198,500
ENGINEERING *** % OF THE TOTAL \$	--	5.1
ENGINEERING *** AVG. COST PER HORSEPOWER	\$ --	42
41		
LABOR		
TOTAL LABOR	\$ 459,773	\$ 1,552,972
LABOR % OF THE TOTAL \$	27.6	40.2
LABOR AVG. COST PER HORSEPOWER	120	331
108		
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION		
OVERHEAD	\$ 19,192	\$ 106,743
OTHER MISCELLANEOUS 1/	31,919	369,427
TOTAL MISCELLANEOUS	79,699	--
MISCELLANEOUS % OF THE TOTAL \$	130,810	476,170
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 7.8	12.3
34	102	36
TOTAL COST		
TOTAL COST	\$ 2/	\$ 1,668,079
TOTAL AVG. COST PER HORSEPOWER	435	3,866,620
COST RANGE PER HORSEPOWER		
MINIMUM	\$ 3/	\$ 824
MAXIMUM	\$ 867	561
		524
		601

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

Table G-1
Sheet 1 of 2
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COMPARISON OF CONSTRUCTION COSTS FOR
STORAGE COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

DESCRIPTIVE DATA				NEW STORAGE COMPRESSOR STATIONS	
		1977	1978	1979	1980
NUMBER OF UNITS			2		3
TOTAL HORSEPOWER			16,000		21,100
COST DATA					
MATERIALS					
TOTAL MATERIALS	\$	\$	7,122,692	18,045,419	18,045,419
MATERIAL % OF THE TOTAL	%	%	63.8	50.8	50.8
MATERIAL AVG. COST PER HORSEPOWER	\$	\$	445	855	855
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ***	\$	\$	871,397	3,905,977	3,905,977
ENGINEERING *** % OF THE TOTAL	%	%	7.8	11.0	11.0
ENGINEERING *** AVG. COST PER HORSEPOWER	\$	\$	54	185	185
LABOR					
TOTAL LABOR	\$	\$	2,256,504	8,513,740	8,513,740
LABOR % OF THE TOTAL	%	%	20.2	24.0	24.0
LABOR AVG. COST PER HORSEPOWER	\$	\$	141	404	404
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	\$	\$	610,880	3,635,721	3,635,721
OVERHEAD	\$	\$	310,472	1,390,856	1,390,856
OTHER MISCELLANEOUS 1/	\$	\$	--	20,263	20,263
TOTAL MISCELLANEOUS	\$	\$	921,352	5,046,840	5,046,840
MISCELLANEOUS % OF THE TOTAL	%	%	8.2	14.2	14.2
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	\$	58	239	239
TOTAL COST	\$	\$	11,171,945	2/	35,511,976
TOTAL COST	\$	\$	698	1,683	1,683
TOTAL AYG. COST PER HORSEPOWER					
COST RANGE PER HORSEPOWER					
MINIMUM	\$	\$	3/	1,494	1,494
MAXIMUM	\$	\$		1,993	1,993

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.
3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF CONSTRUCTION COSTS FOR
STORAGE COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FOR CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table G-1
Sheet 2 of 2
Page 108

DESCRIPTIVE DATA		ADDITIONS TO STORAGE COMPRESSOR STATIONS		
COST	DATA	1977	1978	1979
NUMBER OF UNITS			1	1
TOTAL HORSEPOWER		1,100	4,000	3,850
<u>MATERIALS</u>		<u>1980</u>		
TOTAL MATERIALS	\$	\$	589,272	2,132,039
MATERIAL % OF THE TOTAL \$			83.5	63.8
MATERIAL AVG. COST PER HORSEPOWER	\$	\$	536	533
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ***	\$	\$	31,124	109,571
ENGINEERING *** % OF THE TOTAL \$			4.4	3.7
ENGINEERING *** AVG. COST PER HORSEPOWER	\$	\$	28	29
LABOR				
TOTAL LABOR	\$	\$	68,993	832,020
LABOR % OF THE TOTAL \$			9.8	24.9
LABOR AVG. COST PER HORSEPOWER	\$	\$	63	208
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	\$	\$	4,738	139,660
OVERHEAD	\$	\$	11,116	174,086
OTHER MISCELLANEOUS 1/	\$	\$	302	65,100
TOTAL MISCELLANEOUS	\$	\$	16,156	378,846
MISCELLANEOUS % OF THE TOTAL \$			2.3	11.3
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	\$	14	95
TOTAL COST	\$	\$		
TOTAL COST	\$	\$	705,545	3,342,905
TOTAL AVG. COST PER HORSEPOWER			641	836
<u>COST RANGE PER HORSEPOWER</u>		<u>1980</u>		
MINIMUM	\$	\$	3/	3/
MAXIMUM	\$	\$		

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.
3/ ONE REPORT RECEIVED FOR THIS YEAR.

Table G-2
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COMPARISON OF CONSTRUCTION COSTS FOR
STORAGE COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

COST DATA	DESCRIPTIVE DATA	NEW STORAGE COMPRESSOR STATIONS		
		1977	1978	1979
NUMBER OF UNITS		6		
TOTAL HORSEPOWER		21,990		
MATERIALS				
TOTAL MATERIALS		\$ 4,822,817		
MATERIAL % OF THE TOTAL \$		73.5%		
MATERIAL AVG. COST PER HORSEPOWER		\$ 219		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ***		\$ --		
ENGINEERING *** % OF THE TOTAL \$		\$ --		
ENGINEERING *** AVG. COST PER HORSEPOWER		\$ --		
LABOR				
TOTAL LABOR		\$ 1,082,722		
LABOR % OF THE TOTAL \$		16.5%		
LABOR AVG. COST PER HORSEPOWER		\$ 49		
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION		\$ 168,149		
OVERHEAD		\$ 308,643		
OTHER MISCELLANEOUS 1/		\$ 181,380		
TOTAL MISCELLANEOUS		\$ 658,172		
MISCELLANEOUS % OF THE TOTAL \$		10.0%		
MISCELLANEOUS AVG. COST PER HORSEPOWER		\$ 30		
TOTAL COST		\$ 6,563,711		
TOTAL COST PER HORSEPOWER		\$ 298		
COST RANGE PER HORSEPOWER				
MINIMUM		\$ 258		
MAXIMUM		\$ 310		

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS,
2/ NO REPORTS RECEIVED FOR THIS YEAR.

COMPARISON OF CONSTRUCTION COSTS FOR
STORAGE COMPRESSOR STATIONS WITH TURBINE CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

DESCRIPTIVE DATA	ADDITIONS TO STORAGE COMPRESSOR STATIONS		
	1977	1978	1979
NUMBER OF UNITS			
TOTAL HORSEPOWER		4	23,750
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$	\$	
MATERIAL % OF THE TOTAL \$			7,425,550
MATERIAL AVG. COST PER HORSEPOWER	\$	\$	68.1
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING . . .	\$	\$	313
ENGINEERING . . . % OF THE TOTAL \$			217,862
ENGINEERING . . . AVG. COST PER HORSEPOWER	\$	\$	2.0
LABOR			
TOTAL LABOR	\$	\$	
LABOR % OF THE TOTAL \$			2,056,718
LABOR AVG. COST PER HORSEPOWER	\$	\$	18.9
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$	\$	
OVERHEAD	\$	\$	86
OTHER MISCELLANEOUS 1/	\$	\$	602,166
TOTAL MISCELLANEOUS	\$	\$	576,381
MISCELLANEOUS % OF THE TOTAL \$			24,460
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	\$	1,203,007
TOTAL COST	\$	\$	
TOTAL COST	\$	\$	10,903,137
TOTAL AVG. COST PER HORSEPOWER			459
COST RANGE PER HORSEPOWER			
MINIMUM	\$	\$	279
MAXIMUM	\$	\$	668

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.

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COMPARISON OF CONSTRUCTION COSTS FOR
STORAGE COMPRESSOR STATIONS WITH ELECTRIC MOTOR DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

		1977	1978	1979	1980
<u>DESCRIPTIVE DATA</u>					
NUMBER OF UNITS		2			
TOTAL HORSEPOWER		2,500			
<u>COST DATA</u>					
MATERIALS					
TOTAL MATERIALS	\$	851,947			
MATERIAL % OF THE TOTAL \$		60.0%			
MATERIAL AVG. COST PER HORSEPOWER	\$	341			
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ***	\$	62,225			
ENGINEERING *** % OF THE TOTAL \$		4.4%			
ENGINEERING *** AVG. COST PER HORSEPOWER	\$	25			
LABOR					
TOTAL LABOR	\$	379,526			
LABOR % OF THE TOTAL \$		26.7%			
LABOR AVG. COST PER HORSEPOWER	\$	152			
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	\$	10,840			
OVERHEAD	\$	97,559			
OTHER MISCELLANEOUS 1/	\$	18,488			
TOTAL MISCELLANEOUS \$	\$	126,887			
MISCELLANEOUS % OF THE TOTAL \$		8.9%			
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	50			
TOTAL COST	\$	1,420,585			
TOTAL COST	\$	1,420,585			
TOTAL AVG. COST PER HORSEPOWER	\$	568			
<u>COST RANGE PER HORSEPOWER</u>					
MINIMUM	\$				
MAXIMUM	\$				

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.
3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF CONSTRUCTION COSTS FOR
STORAGE COMPRESSOR STATIONS WITH ELECTRIC MOTOR DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

Table G-3
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Page 112

DESCRIPTIVE DATA	1977	ADDITIONS TO STORAGE COMPRESSOR STATIONS		1980
		1978	1979	
NUMBER OF UNITS		3		
TOTAL HORSEPOWER		18,000		
COST DATA				
MATERIALS				
TOTAL MATERIALS	\$	\$	\$	
MATERIAL % OF THE TOTAL \$	%	%	%	
MATERIAL AVG. COST PER HORSEPOWER	\$	\$	\$	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ::.	\$	\$	\$	
ENGINEERING :: % OF THE TOTAL \$	%	%	%	
ENGINEERING ... AVG. COST PER HORSEPOWER	\$	\$	\$	
LABOR				
TOTAL LABOR	\$	\$	\$	
LABOR % OF THE TOTAL \$	%	%	%	
LABOR AVG. COST PER HORSEPOWER	\$	\$	\$	
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	\$	\$	\$	
OVERHEAD	\$	\$	\$	
OTHER MISCELLANEOUS 1/	\$	\$	\$	
TOTAL MISCELLANEOUS 1/	\$	\$	\$	
MISCELLANEOUS % OF THE TOTAL \$	%	%	%	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	\$	\$	
TOTAL COST	\$	\$	\$	
TOTAL COST	\$	\$	\$	
TOTAL AVG. COST PER HORSEPOWER	\$	\$	\$	
COST RANGE PER HORSEPOWER				
MINIMUM	\$	\$	\$	
MAXIMUM	\$	\$	\$	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.

COMPARISON OF CONSTRUCTION COSTS FOR
OFFSHORE COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

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DESCRIPTIVE DATA				NEW OFFSHORE COMPRESSOR STATIONS	
				1979	
				1980	
NUMBER OF UNITS	TOTAL HORSEPOWER	1977	1978	1979	1980
MATERIALS					
TOTAL MATERIALS	\$	\$	5,001,138	11,276,627	711,502
MATERIAL % OF THE TOTAL \$	%	%	66.3	30.5	80.0
MATERIAL AVG. COST PER HORSEPOWER	\$	\$	568	1,277	593
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY					
TOTAL ENGINEERING ***	\$	\$	10,200	---	73,920
ENGINEERING *** % OF THE TOTAL \$	%	%	0.1	---	8.3
ENGINEERING *** AVG. COST PER HORSEPOWER	\$	\$	1	---	62
LABOR					
TOTAL LABOR	\$	\$	2,148,476	2,646,627	82,180
LABOR % OF THE TOTAL \$	%	%	28.5	63.1	9.3
LABOR AVG. COST PER HORSEPOWER	\$	\$	244	2,647	68
MISCELLANEOUS					
INTEREST DURING CONSTRUCTION	\$	\$	184,416	175,103	---
OVERHEAD	\$	\$	100,336	92,144	21,690
OTHER MISCELLANEOUS 1/	\$	\$	96,501	---	---
TOTAL MISCELLANEOUS	\$	\$	381,253	267,247	21,690
MISCELLANEOUS % OF THE TOTAL \$	%	%	5.1	6.4	2.4
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	\$	44	267	18
TOTAL COST	\$	\$	7,541,067	4,190,501	889,292
TOTAL AVG. COST PER HORSEPOWER	\$	\$	857	4,191	741
COST RANGE PER HORSEPOWER					
MINIMUM	\$	\$	527	3/	
MAXIMUM	\$	\$	4,652	3/	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.
3/ ONE REPORT RECEIVED FOR THIS YEAR.

COMPARISON OF CONSTRUCTION COSTS FOR
OFFSHORE COMPRESSOR STATIONS WITH RECIPROCATING UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

DESCRIPTIVE DATA	NUMBER OF UNITS	TOTAL HORSEPOWER	ADDITIONS TO OFFSHORE COMPRESSOR STATIONS			
			1977	1978	1979	1980
<u>COST DATA</u>						
MATERIALS			\$	\$	\$	\$
TOTAL MATERIALS						
MATERIAL % OF THE TOTAL \$						
MATERIAL AVG. COST PER HORSEPOWER						
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			\$	\$	\$	\$
TOTAL ENGINEERING ***						
ENGINEERING *** % OF THE TOTAL \$						
ENGINEERING *** AVG. COST PER HORSEPOWER						
LABOR			\$	\$	\$	\$
TOTAL LABOR						
LABOR % OF THE TOTAL \$						
LABOR AVG. COST PER HORSEPOWER						
MISCELLANEOUS			\$	\$	\$	\$
INTEREST DURING CONSTRUCTION						
OVERHEAD						
OTHER MISCELLANEOUS 1/						
TOTAL MISCELLANEOUS 1/						
MISCELLANEOUS % OF THE TOTAL \$						
MISCELLANEOUS AVG. COST PER HORSEPOWER						
TOTAL COST			\$	\$	\$	\$
TOTAL COST						
TOTAL AVG. COST PER HORSEPOWER						
COST RANGE PER HORSEPOWER			\$	\$	\$	\$
MINIMUM						
MAXIMUM						

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.
2/ NO REPORTS RECEIVED FOR THIS YEAR.

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COMPARISON OF CONSTRUCTION COSTS FOR
OFFSHORE COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

DESCRIPTIVE DATA	1977	NEW OFFSHORE COMPRESSOR STATIONS	
		1978	1979
NUMBER OF UNITS	3	3	3
TOTAL HORSEPOWER	4,810	46,100	
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$ 1,765,891		\$ 48,208,620
MATERIAL % OF THE TOTAL \$	58.0%		49.8
MATERIAL AVG. COST PER HORSEPOWER	\$ 367		1,046
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ 258,241		\$ 7,974,937
ENGINEERING *** % OF THE TOTAL \$	8.5%		8.2
ENGINEERING *** AVG. COST PER HORSEPOWER	\$ 54		173
LABOR			
TOTAL LABOR	\$ 919,211		\$ 20,136,106
LABOR % OF THE TOTAL \$	30.2%		20.8
LABOR AVG. COST PER HORSEPOWER	\$ 191		437
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 85,858		\$ 19,713,734
OVERHEAD	\$ 13,644		\$ 723,663
OTHER MISCELLANEOUS 1/	\$ --		--
TOTAL MISCELLANEOUS 1/	\$ 99,502		\$ 20,437,397
MISCELLANEOUS % OF THE TOTAL \$	3.3%		21.2
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 21		443
TOTAL COST			
TOTAL COST	\$ 3,042,845		\$ 96,757,060
TOTAL AVG. COST PER HORSEPOWER	\$ 633		\$ 2,099
COST RANGE PER HORSEPOWER			
MINIMUM	\$ 557		2/
MAXIMUM	\$ 661		3/

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

2/ NO REPORTS RECEIVED FOR THIS YEAR.

3/ ONE REPORT RECEIVED FOR THIS YEAR.

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COMPARISON OF CONSTRUCTION COSTS FOR
OFFSHORE COMPRESSOR STATIONS WITH TURBINE DRIVEN CENTRIFUGAL UNITS
REPORTED FROM CONSTRUCTION ENDING IN 1977 THROUGH 1980

DESCRIPTIVE DATA	NUMBER OF UNITS	TOTAL HORSEPOWER	ADDITIONS TO OFFSHORE COMPRESSOR STATIONS		
			1977	1978	1979
COST DATA					
MATERIALS					
TOTAL MATERIALS	\$	\$ 2,745,742	9,927,796	873,561	1,438,954
MATERIAL % OF THE TOTAL \$		49.3%	22.3	59.5	70.9
MATERIAL AVG. COST PER HORSEPOWER	\$	266	699	219	480
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY	\$				
TOTAL ENGINEERING ...	\$	\$ 416,642	6,960,676	149,247	--
ENGINEERING ... % OF THE TOTAL \$		7.5%	15.7	10.2	--
ENGINEERING ... AVG. COST PER HORSEPOWER	\$	40	490	37	--
LABOR	\$	\$ 2,276,785	23,582,241	264,081	503,514
TOTAL LABOR		40.9%	53.0	18.0	24.8
LABOR % OF THE TOTAL \$		220	1,661	66	168
LABOR AVG. COST PER HORSEPOWER	\$				
MISCELLANEOUS	\$				
INTEREST DURING CONSTRUCTION	\$	\$ 131,051	2,370,061	101,212	87,124
OVERHEAD	\$	--	1,647,238	79,608	--
OTHER MISCELLANEOUS 1/	\$	--	--	--	--
TOTAL MISCELLANEOUS 1/	\$	\$ 131,051	4,017,299	180,820	87,124
MISCELLANEOUS % OF THE TOTAL \$		2.3%	9.0	12.3	4.3
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	13	283	45	29
TOTAL COST	\$	\$ 5,570,220	44,488,012	1,467,709	2,029,592
TOTAL COST	\$	539	3,133	367	677
TOTAL AVG. COST PER HORSEPOWER	\$				
COST RANGE PER HORSEPOWER	\$				
MINIMUM	\$	296	624	2/	
MAXIMUM	\$	665	8,495		

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

2/ ONE REPORT RECEIVED FOR THIS YEAR.

PART II: INDIVIDUAL PROJECTS 1977-1980

CONSTRUCTION COST REPORTS FILED FROM SEPTEMBER 15, 1980 THROUGH SEPTEMBER 30, 1981
CONSTRUCTION ENDING IN 1976

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TYPE OF CONSTRUCTION COST REPORTED

DOCKET NO. (CP)	COMPRESSOR STATIONS		ONSHORE PIPELINES		OFFSHORE PIPELINES	MIXED PIPELINES
	ONSHORE	OFFSHORE	TRANSMISSION	LATERAL		
75-167	X			X		

MICHIGAN WISCONSIN PIPE LINE CO.

CONSTRUCTION COST REPORTS FILED FROM SEPTEMBER 15, 1980 THROUGH SEPTEMBER 30, 1981
 CONSTRUCTION ENDING IN 1977

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	<u>TYPE OF CONSTRUCTION COST REPORTED</u>				
<u>DOCKET NO. (CP)</u>	<u>COMPRESSOR STATIONS</u>	<u>ONSHORE OFFSHORE</u>	<u>TRANSMISSION</u>	<u>ONSHORE PIPELINES</u>	<u>OFFSHORE PIPELINES</u>
	<u>ONSHORE</u>	<u>OFFSHORE</u>	<u>LATERAL</u>		<u>MIXED PIPELINES</u>
CITIES SERVICE GAS CO.					X
EL PASO NATURAL GAS CO.	76-282	X			X
"	77-289				
MICHIGAN WISCONSIN PIPE LINE CO.	77-553				X
SOUTHWEST GAS CORP.	75-182	X			
TENNESSEE GAS PIPELINE CO. (TENNECO)	77-434			X	X
TENNESSEE GAS PIPELINE CO. (TENNECO), COLUMBIA	76-311				X
GULF TRANSMISSION CO., AND SOUTHERN NATURAL GAS CO.	77-21				
TEXAS EASTERN TRANSMISSION CORP.	74-102	X			
WESTERN GAS INTERSTATE CO.	77-347		X		

CONSTRUCTION COST REPORTS FILED FROM SEPTEMBER 15, 1980 THROUGH SEPTEMBER 30, 1981
 CONSTRUCTION ENDING IN 1978

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TYPE OF CONSTRUCTION COST REPORTED

DOCKET NO. (CP)	<u>COMPRESSOR STATIONS</u>			<u>ONSHORE PIPELINES</u>		OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
	<u>ONSHORE</u>	<u>OFFSHORE</u>	<u>TRANSMISSION</u>	<u>LATERAL</u>			
ARKANSAS LOUISIANA GAS CO.		X				X	
"	77-662	X				X	
ARKANSAS OKLAHOMA GAS CORP.	78-75					X	
CITIES SERVICE GAS CO.	78-48	X				X	
"	75-345					X	
COLUMBIA GAS TRANSMISSION CORP.						X	
COLUMBIA GULF TRANSMISSION CO. AND NORTHERN						X	
NATURAL GAS CO.	76-282					X	
"	77-306					X	
COLUMBIA GULF TRANSMISSION CO. AND NORTHERN	78-108					X	
NATURAL GAS CO.						X	
COLUMBIA GULF TRANSMISSION CO., NORTHERN						X	
NATURAL GAS CO., AND TENNESSEE GAS PIPELINE						X	
CO. (TENNECO)	75-359					X	
COLUMBIA GULF TRANSMISSION CO. AND TENNESSEE	77-499					X	
GAS PIPELINE CO. (TENNECO)						X	
"	77-348					X	
COLUMBIA GULF TRANSMISSION CO. AND TENNESSEE	77-262					X	
GAS PIPELINE CO. (TENNECO)						X	
"	77-474					X	
CONSOLIDATED GAS SUPPLY CORP.						X	
"	77-336					X	
KANSAS-NEBRASKA NATURAL GAS CO., INC.						X	
"	78-225					X	
MICHIGAN WISCONSIN PIPE LINE CO.						X	
MOUNTAIN FUEL SUPPLY CO.	78-394					X	
NATURAL GAS PIPELINE CO. OF AMERICA, CONSOLIDATED	75-57					X	
GAS SUPPLY CORP., AND PANHANDLE EASTERN PIPE	77-176					X	
LINE CO.	78-244					X	
NORTHERN NATURAL GAS CO.	78-353					X	
"	78-289					X	
SOUTHERN NATURAL GAS CO. AND ALABAMA GAS CORP.	78-115					X	
TENNESSEE GAS PIPELINE CO. (TENNECO)	78-187					X	
"	78-238					X	
TENNESSEE GAS PIPELINE CO. (TENNECO)	77-482					X	
"	78-343					X	
TENNESSEE GAS PIPELINE CO. (TENNECO), COLUMBIA GULF	77-21					X	
TRANSMISSION CO., AND SOUTHERN NATURAL GAS CO.	77-109					X	
TEXAS EASTERN TRANSMISSION CORP.	77-616					X	
TEXAS GAS TRANSMISSION CORP.						X	

CONSTRUCTION COST REPORTS FILED FROM SEPTEMBER 15, 1980 THROUGH SEPTEMBER 30, 1981
CONSTRUCTION ENDING IN 1979

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	<u>DOCKET NO. (CP)</u>	<u>COMPRESSOR STATIONS ONSHORE OFFSHORE</u>	<u>ONSHORE PIPELINES TRANSMISSION LATERAL</u>	<u>OFFSHORE PIPELINES</u>	<u>MIXED DIAMETER PIPELINES</u>
<u>TYPE OF CONSTRUCTION COST REPORTED</u>					
CITIES SERVICE GAS CO.	78-177		X		X
COLUMBIA GAS TRANSMISSION CORP.	77-282				
COLUMBIA GULF TRANSMISSION CO. AND TENNESSEE GAS PIPELINE CO. (TENNECO)	78-489		X		X
EL PASO NATURAL GAS CO.	79-233				X
EL PASO NATURAL GAS CO. AND CITIES SERVICE GAS CO.	79-114				X
FLORIDA GAS TRANSMISSION CO.	78-537	X			X
KANSAS-NEBRASKA NATURAL GAS CO., INC.	79-158				X
MICHIGAN WISCONSIN PIPE LINE CO.	77-567				X
MOUNTAIN FUEL SUPPLY CO.	75-37			X	
NATURAL GAS PIPELINE CO. OF AMERICA, CONSOLIDATED GAS SUPPLY CORP., AND PANHANDLE EASTERN PIPE LINE CO.				X	
NORTHERN NATURAL GAS CO.	78-289				
NORTHWEST PIPELINE CORP.	78-187		X		
SEA ROBIN PIPELINE CO.	78-397		X		
SEALY PIPELINE CO.	78-438				
TENNESSEE GAS PIPELINE CO. (TENNECO) AND MICHIGAN TENNESSEE GAS PIPELINE CO.	79-177				
WISCONSIN PIPE LINE CO.					
WISCONSIN GAS PIPELINE CO. (TENNECO) AND UNITED GAS PIPE LINE CO.	78-469		X		X
TEXAS GAS TRANSMISSION CORP.	78-436				
TRANSCONTINENTAL GAS PIPE LINE CORP.	79-215				
"	78-313				
UNITED GAS PIPE LINE CO.	78-486				
"	77-526				
UNITED GAS PIPE LINE CO. AND MICHIGAN WISCONSIN PIPE LINE CO.	78-426		X		X
UNITED GAS PIPE LINE CO., NATURAL GAS PIPELINE CO. OF AMERICA, NORTHERN NATURAL GAS CO., TEXAS EASTERN TRANSMISSION CORP., AND TRUNKLINE GAS CO.	79-103				X
UNITED GAS PIPE LINE CO., SOUTHERN NATURAL GAS CO., AND TRANSCONTINENTAL GAS PIPE LINE CORP.	78-386				X
	79-252				

CONSTRUCTION COST REPORTS FILED FROM SEPTEMBER 15, 1980 THROUGH SEPTEMBER 30, 1981
CONSTRUCTION ENDING IN 1980

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TYPE OF CONSTRUCTION COST REPORTED

	DOCKET NO. (CP)	COMPRESSOR STATIONS <u>ONSHORE</u>	ONSHORE PIPELINES <u>OFFSHORE</u>	TRANSMISSION LATERAL	OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
ANR STORAGE CO.	78-432	X		X		X
CITIES SERVICE GAS CO.	79-156				X	X
COLORADO INTERSTATE GAS CO.	79-128	X				
"	79-426	X				
"	79-447			X		
COLUMBIA GAS TRANSMISSION CORP.	80-40	X		X		
COLUMBIA GULF TRANSMISSION CO. AND TENNESSEE GAS PIPELINE CO. (TENNECO)	79-408			X		
CONSOLIDATED GAS SUPPLY CORP.	78-489			X		
"	75-158			X		
"	78-143			X		
"	79-190			X		X
EL PASO NATURAL GAS CO.	80-455			X		
GREAT LAKES GAS TRANSMISSION CO.	79-307			X		
KANSAS-NEBRASKA NATURAL GAS CO., INC.	80-172			X		
LONE STAR GAS CO. (ENSEARCH)	80-278			X		
MICHIGAN WISCONSIN PIPE LINE CO., TEXAS EASTERN TRANSMISSION CORP., AND TRANSCONTINENTAL GAS PIPE LINE CO.	79-158			X		
MID LOUISIANA GAS CO.	80-445			X		
MIDWESTERN GAS TRANSMISSION CO.	80-82			X		
MONTANA-DAKOTA UTILITIES CO.	79-459			X		
MOUNTAIN FUEL RESOURCES, INC.	79-104			X		
MOUNTAIN FUEL SUPPLY CO.	80-76			X		
"	72-195			X		
NATURAL GAS PIPELINE CO. OF AMERICA	75-37			X		
"	80-545			X		
"	77-641			X		
"	79-45			X		
"	79-147			X		
"	80-220			X		
"	80-252			X		
NATURAL GAS PIPELINE CO. OF AMERICA, MICHIGAN WISCONSIN PIPE LINE CO., TRANSCONTINENTAL GAS PIPE LINE CORP., AND UNITED GAS PIPE LINE CO.	80-308			X		
NORTHERN NATURAL GAS CO.	79-327			X		
NORTHERN NATURAL GAS CO., SOUTHERN NATURAL GAS CO., AND UNITED GAS PIPE LINE CO.	80-207			X		
NORTHERN NATURAL GAS CO., TEXAS EASTERN TRANSMISSION CORP., TRANSCONTINENTAL GAS PIPE LINE CORP., AND UNITED GAS PIPE LINE CO.	78-428			X		
PANHANDLE EASTERN PIPE LINE CO.	77-383			X		X
"	77-619			X		X
"	79-279			X		X
"	79-355			X		X
"	79-356			X		X

CONSTRUCTION COST REPORTS FILED FROM SEPTEMBER 15, 1980 THROUGH SEPTEMBER 30, 1981
 CONSTRUCTION ENDING IN 1980

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TYPE OF CONSTRUCTION COST REPORTED

DOCKET NO. (CP)	COMPRESSOR STATIONS		ONSHORE PIPELINES		OFFSHORE PIPELINES	MIXED DIAMETER PIPELINES
	ONSHORE	OFFSHORE	TRANSMISSION	LATERAL		
SOUTHERN NATURAL GAS CO.					X	
SOUTHERN NATURAL GAS CO. AND FLORIDA GAS TRANSMISSION CO.	80-184				X	
TENNESSEE GAS PIPELINE CO.					X	
TENNESSEE GAS PIPELINE CO. (TENNECO), NATURAL GAS PIPELINE CO. OF AMERICA, TEXAS EASTERN TRANSMISSION CORP., AND TRUNKLINE GAS CO.	80-257				X	
"	79-405				X	
TEXAS GAS TRANSMISSION CORP.	80-30				X	
"	79-371				X	
"	80-158				X	
"	80-162				X	
"	80-196				X	
"	80-284				X	
TEXAS SEA RIM PIPELINE, INC.	79-413				X	
TRANSCONTINENTAL GAS PIPE LINE CORP.	79-70				X	
"	79-191				X	
"	79-454				X	
"	79-502				X	
"	80-136				X	
"	80-150				X	
"	80-411				X	
"	80-415				X	
TRUNKLINE GAS CO.	80-418				X	
"	75-19				X	
"	78-72				X	
UNITED GAS PIPE LINE CO.	78-219				X	
"	79-267				X	
WESTERN GAS INTERSTATE CO.	80-190				X	
"	76-516				X	

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1977

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<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST PER MILE</u>
<u>ONSHORE TRANSMISSION PIPELINE</u>						
75-182 "	MICHIGAN WISCONSIN PIPE LINE CO.	42 " " "	15.90 6.40	MI IN	\$13,166,478 6,333,250	\$ 828,080 989,570

PIPELINE CONSTRUCTION PROJECTS
 3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 CONSTRUCTION ENDING IN 1979

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<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST PER MILE</u>
<u>ONSHORE TRANSMISSION PIPELINE</u>						
78-426	UNITED GAS PIPE LINE CO.	1.2	3.44	TX	\$ 633,284	\$ 184,094
78-436	TENNECO AND UNITED	24	16.30	LA	10,692,518	655,983

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1980

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DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVESED	TOTAL COST	Avg. Cost Per Mile
<u>ONSHORE TRANSMISSION PIPELINE</u>						
79-408	COLUMBIA GAS TRANSMISSION CORP.	10	15.60	OH	\$ 2,401,100	\$ 153.917
79-45	NATURAL GAS PIPELINE CO. OF AMERICA	1/ 10	69.41	CO	4,701,571	67.736
80-76	MONTANA-DAKOTA UTILITIES CO.	12	21.40	WY	1,678,364	78.428
80-190	UNITED GAS PIPE LINE CO.	16	21.00	TX	3,728,321	177,539
80-40	COLORADO INTERSTATE GAS CO.	24	51.80	WY	11,920,338	230,122
78-143	CONSOLIDATED GAS SUPPLY CORP.	24	19.10	WV	7,338,193	384,199
75-19	TRUNKLINE GAS CO.	24	23.40	LA	10,710,588	457,717
"	"	24	10.90	LA	4,825,562	442,712
"	"	24	6.66	LA	3,803,447	571,088
80-220	NATURAL GAS PIPELINE CO OF AMERICA	30	47.89	OK, TX	15,300,000	319,482
79-267	UNITED GAS PIPE LINE CO.	30	21.50	LA	13,478,574	626,910
78-432	ANR STORAGE CO.	36	15.60	MI	10,403,416	666,886
80-278	GREAT LAKES GAS TRANSMISSION CO.	36	18.60	MN	11,843,429	636,743
"	"	36	11.50	MN	6,773,313	588,984
78-219	TRUNKLINE GAS CO.	36	26.70	LA	29,517,261	1,105,515

1/ INCLUDES LATERAL PIPELINE IN THE AMOUNTS OF: 3.07 MILES OF 8 INCH, 5.12 MILES OF 6 INCH, AND 3.46 MILES OF 4 INCH.

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PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1976

<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST PER MILE</u>
<u>ONSHORE LATERAL PIPELINE</u>						
75-167	MICHIGAN WISCONSIN PIPE LINE CO.	6	5.30	OK	\$ 405,522	\$ 76,514
"	"	10	14.70	OK	1,194,121	81,233
"	"	12	7.50	OK	767,089	102,279
"	"	16	27.40	OK	3,618,795	132,073
"	"	16	5.10	OK	979,475	192,054
"	"	16	3.20	OK	873,513	272,973
"	"	16	3.00	OK	716,782	238,927
"	"	20	3.80	OK	1,073,208	282,423

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1977

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<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>AVG. COST PER MILE</u>
<u>ONSHORE LATERAL PIPELINE</u>						
77-347	WESTERN GAS INTERSTATE CO.	4	9.14	NM	\$ 283,988	\$ 31,071
76-282	CITIES SERVICE GAS CO.	6	4.80	KS	356,060	74,179
77-553	EL PASO NATURAL GAS CO.	6	5.83	OK	380,142	65,204
77-434	SOUTHWEST GAS CORP.	8	12.00	NV	747,256	62,271
"	"	10	14.00	NV	1,088,811	77,772

3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
 PIPELINE CONSTRUCTION PROJECTS
 CONSTRUCTION ENDING IN 1978

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<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST per mile</u>
<u>ONSHORE LATERAL PIPELINE</u>						
75-57	KANSAS-NEBRASKA NATURAL GAS CO., INC.	4	127.70	MT	\$ 3,093,745	\$ 24,227
"	"	6	54.40	MT	1,752,989	32,224
78-225 75-57	CONSOLIDATED GAS SUPPLY CORP. KANSAS-NEBRASKA NATURAL GAS CO., INC.	8 8	5.95 6.10	WV MT	676,142 352,995	113,637 57,868
"	"	10	14.40	MT	695,951	48,330
77-109	TEXAS EASTERN TRANSMISSION CORP.	10	28.50	TX	8,627,310	302,713
75-57 77-176 78-115	KANSAS-NEBRASKA NATURAL GAS CO., INC. " NORTHERN NATURAL GAS CO.	1.2 12 12	14.90 20.80 4.99	MT WY KS	1,018,966 1,220,518 518,973	68,387 58,679 104,003
75-57	KANSAS-NEBRASKA NATURAL GAS CO., INC.	1.4	3.60	MT	237,239	65,900
75-345	CITIES SERVICE GAS CO.	20 20	13.19 4.14	MO KS	2,594,938 174,380	196,735 174,971

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1979

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<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST PER MILE</u>
<u>ONSHORE LATERAL PIPELINE</u>						
78-177	CITIES SERVICE GAS CO.	2	5.30	KS	\$ 122,220	\$ 23,060
79-158	KANSAS-NEBRASKA NATURAL GAS CO., INC.	4	16.20	MT	530,861	32,769
79-114	EL PASO AND CITIES	10	6.00	TX	324,758	54,126
79-177	TENNESSEE GAS PIPELINE CO. (TENNECO)	10	4.20	LA	1,463,764	348,515
79-158	KANSAS-NEBRASKA NATURAL GAS CO., INC.	12	10.60	MT	835,116	78,785
79-114	EL PASO AND CITIES	16	9.50	TX	1,234,558	129,953
78-489	COLUMBIA GULF AND TENNECO	36	5.10	LA	3,819,901	749,000

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1980

Table J-1
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Page 130

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE		MILES CONSTRUCTED	STATES TRAVESED	TOTAL COST	AVG. COST PER MILE
		IN INCHES					
<u>ONSHORE LATERAL PIPELINE</u>							
79-158	KANSAS-NEBRASKA NATURAL GAS CO., INC.	4		31.50	MT	\$ 969,283	\$ 30,771
77-619	PANHANDLE EASTERN PIPE LINE CO. 1/	4		87.80	CO	6,165,237	70,219
79-158	KANSAS-NEBRASKA NATURAL GAS CO., INC.	6		6.30	MT	284,915	45,225
79-459	MID LOUISIANA GAS CO.	6		5.02	LA	972,000	193,625
75-158	CONSOLIDATED GAS SUPPLY CORP.	8		6.20	WV	1,094,597	176,348
80-455	"	8		9.55	WV	1,431,790	149,926
77-619	PANHANDLE EASTERN PIPE LINE CO.	10		20.80	OK	1,438,411	69,154
79-356	"	10		10.60	OK	1,087,969	102,639
79-447	COLORADO INTERSTATE GAS CO.	12		4.32	WY	433,559	100,361
77-619	PANHANDLE EASTERN PIPE LINE CO.	12		20.60	TX	1,906,692	92,558
79-279	"	2/	16	24.28	OK	4,158,498	171,273
77-619	"	3/	20	4.77	TX	758,179	158,947
79-454	TRANSCONTINENTAL GAS PIPE LINE CORP.	36		13..67	LA	9,706,591	710,065

1/ INCLUDES LATERAL PIPELINE IN THE AMOUNTS OF: 12.20 MILES OF 12 INCH, 7.10 MILES OF 8 INCH, 7.00 MILES OF 6 INCH,
AND 0.20 MILES OF 3 INCH.

2/ INCLUDES 0.98 MILES OF 4 INCH LATERAL PIPELINE.

3/ INCLUDES 0.07 MILES OF 18 INCH LATERAL PIPELINE.

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1977

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<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>AVG. COST PER MILE</u>
<u>OFFSHORE PIPELINE</u>						
76-311	TENNESSEE GAS PIPELINE CO. (TENNECO)	16	5.30	LA	\$ 2,990,860	\$ 564,313
77-21	TENNECO, COLUMBIA GULF, AND SOUTHERN ^{1/}	20	32.40	LA	16,356,381	504,827

^{1/} INCLUDES 9.70 MILES OF OFFSHORE 24 INCH PIPELINE.

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1978

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<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST PER MILE</u>
<u>OFFSHORE PIPELINE</u>						
78-244	MICHIGAN WISCONSIN PIPE LINE CO.	6	3.30	LA	\$ 2,640,401	\$ 800,122
"	"	10	18.50	LA	5,383,453	290,997
77-21	TENNECO, COLUMBIA GULF, AND SOUTHERN	12	5.70	LA	2,800,381	491,295
78-289	NGPL, CON GAS, AND PANHANDLE	16	10.03	LA	4,618,055	460,424
78-343	TENNESSEE GAS PIPELINE CO. (TENNECO)	1.6	13.90	LA	6,695,442	481,686
77-499	COLUMBIA GULF AND NORTHERN	20	4.26	LA	3,285,971	771,355
77-616	TEXAS GAS TRANSMISSION CORP. 1/	20	12.50	LA	6,293,033	503,443
75-262	COLUMBIA GULF AND TENNECO	24	10.20	LA	11,175,639	1,095,651
75-359	COLUMBIA GULF AND NORTHERN	30	18.10	LA	14,776,152	816,362
75-262	COLUMBIA GULF AND TENNECO	30	30.40	LA	27,016,275	888,693
77-482	TENNESSEE GAS PIPELINE CO. (TENNECO)	36	19.90	LA	21,668,187	1,088,854

1/ INCLUDES 0.38 MILES OF ONSHORE 12 INCH PIPELINE.

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1979

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DOCKET NO. (CP)	<u>APPLICANT</u>	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVESED	TOTAL COST	Avg. Cost Per Mile
<u>OFFSHORE PIPELINE</u>						
78-537	FLORIDA GAS TRANSMISSION CO.	10	6.36	LA	\$ 1,900,280	\$ 298,786
77-567	MICHIGAN WISCONSIN PIPE LINE CO.	10	9.20	LA	3,150,973	342,497
78-486	TRANSCONTINENTAL GAS PIPE LINE CORP.	10	7.17	LA	2,796,371	390,010
78-289	NGPL, CON GAS, AND PANHANDLE	12	5.82	LA	2,633,043	452,413
78-438	SEA ROBIN PIPELINE CO.	12	3.95	LA	2,566,203	649,672
78-386	UNITED, NGPL, NORTHERN, TETCO, & TRUNKLINE	12	12.90	TX	4,882,486	378,487
"	"	12	8.70	TX	4,746,073	545,526
79-252	UNITED, SOUTHERN, AND TRANSCO	12	11.20	LA	4,431,674	395,685
78-469	TENNECO AND MICH WISC	16	33.50	LA	12,394,000	369,970
78-313	TRANSCONTINENTAL GAS PIPE LINE CORP.	16	6.83	LA	4,163,436	609,581
78-386	UNITED, NGPL, NORTHERN, TETCO, & TRUNKLINE	20	8.95	TX	5,977,069	667,829
77-567	MICHIGAN WISCONSIN PIPE LINE CO.	24	13.50	LA	12,556,097	930,081
"	"	30	29.90	LA	22,361,004	747,860

PIPELINE CONSTRUCTION PROJECTS
3 MILES AND OVER (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1980

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DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVESED	TOTAL COST	Avg. Cost Per Mile
						OFFSHORE PIPELINE
79-191	TRANSCONTINENTAL GAS PIPE LINE CORP.	6	3.22	TX	\$ 2,470,951	\$ 767,376
80-184	SOUTHERN NATURAL GAS CO. <u>1/</u>	8	6.20	LA	2,234,210	360,356
"	"	8	5.85	LA	2,061,262	352,352
80-30	TENNECO, NGPL, TETCO, AND TRUNKLINE	10	7.20	LA	2,948,700	409,542
79-502	TRANSCONTINENTAL GAS PIPE LINE CORP.	12	26.69	TX	12,444,411	481,244
75-19	TRUNKLINE GAS CO.	12	3.60	LA	2,825,087	784,746
79-413	TEXAS SEA RIM PIPELINE, INC.	14	14.10	TX	5,114,657	362,742
80-82	MICH WISC, TETCO, AND TRANSCO	16	3.70	LA	3,016,132	815,171
80-252	NATURAL GAS PIPELINE CO. OF AMERICA	16	26.32	TX	10,321,780	392,165
80-308	NORTHERN NATURAL GAS CO.	16	9.30	LA	8,095,511	870,485
80-207	NORTHERN, SOUTHERN, AND UNITED <u>2/</u>	16	15.20	LA	8,399,995	552,631
78-428	NORTHERN, TETCO, TRANSCO, AND UNITED	16	13.20	LA	5,005,537	379,207
80-257	SOUTHERN AND FLA GAS	16	22.46	LA	13,821,399	615,378
79-327	NGPL, MICH WISC, TRANSCO, AND UNITED <u>3/</u>	20	8.10	TX	10,694,131	1,320,263
75-19	TRUNKLINE GAS CO.	22	45.60	LA	19,578,834	429,360
79-70	TRANSCONTINENTAL GAS PIPE LINE CORP.	24	8.43	TX	8,177,897	970,095
79-405	TENNESSEE GAS PIPELINE CO. (TENNECO)	30	30.60	LA	35,380,150	1,156,214
78-489	COLUMBIA GULF AND TENNECO <u>4/</u>	36	25.10	LA	31,206,821	1,243,300

1/ INCLUDES 1.90 MILES OF 6 INCH OFFSHORE PIPELINE.

2/ INCLUDES 0.70 MILES OF 12 INCH OFFSHORE PIPELINE.

3/ INCLUDES 0.30 MILES OF 16 INCH OFFSHORE PIPELINE.

4/ INCLUDES 5.90 MILES OF 36 INCH ONSHORE LATERAL PIPELINE.

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1978

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<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>AVG. COST PER MILE</u>
78-108	ONSHORE TRANSMISSION PIPELINE COLUMBIA GAS TRANSMISSION CORP.	10	1.0	WV	\$ 184,636	\$ 184,636

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1980

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DOCKET NO. (CP)	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST PER MILE</u>
<u>ONSHORE TRANSMISSION PIPELINE</u>						
78-432	ANR STORAGE CO.	20	0.50	MI	\$ 241,803	\$ 483,606
80-136	TRANSCONTINENTAL GAS PIPE LINE CORP.	20	1.45	LA	773,234	533,265
78-432	ANR STORAGE CO.	24	2.40	MI	1,129,563	470,651
75-19	TRUNKLINE GAS CO.	24	1.34	LA	515,860	384,970
"		30	0.86	LA	792,724	921,772

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1978

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DOCKET NO. (CP)	<u>APPLICANT</u>	<u>ONSHORE LATERAL PIPELINE</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>AVG. COST PER MILE</u>
76-282	CITIES SERVICE GAS CO.		2	1.60	KS	\$ 24,419	\$ 15,262
"	"		3	0.29	KS	23,873	82,321
78-75	ARKANSAS LOUISIANA GAS CO.		4	1.65	OK	68,150	41,303
78-394	CONSOLIDATED GAS SUPPLY CORP.		8	1.39	WV	103,503	74,463
78-353	MOUNTAIN FUEL SUPPLY CO.		10	2.92	WY	251,323	86,070
78-187	NORTHERN NATURAL GAS CO.		10	0.19	KS	17,224	90,653

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1979

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DOCKET NO. (CP)	<u>APPLICANT</u>	DIAM. OF PIPE <u>IN INCHES</u>	MILES <u>CONSTRUCTED</u>	STATES <u>TRAVERSED</u>	TOTAL COST	<u>Avg. Cost per mile</u>
						ONSHORE LATERAL PIPELINE
79-158	KANSAS-NEBRASKA NATURAL GAS CO., INC.	6	1.40	MT	\$ 60,430	\$ 43,164
79-215	TEXAS GAS TRANSMISSION CORP.	6	0.13	KY	19,519	150,146
75-37	MOUNTAIN FUEL SUPPLY CO.	1.2	2.31	WY	240,988	104,324
79-233	EL PASO NATURAL GAS CO.	24	0.61	TX	187,270	307,000

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1980

Table J-2
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DOCKET NO. (CP)	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST PER MILE</u>
					<u>ONSHORE LATERAL PIPELINE</u>	
79-156	CITIES SERVICE GAS CO.	4	2.19	KS	\$ 153,440	\$ 70,064
79-307	EL PASO NATURAL GAS CO.	4	0.34	NM	25,395	74,691
76-516	WESTERN GAS INTERSTATE CO.	4	2.08	NM	113,775	54,700
80-445	LONE STAR GAS CO.	6	0.86	OK	92,247	107,264
77-619	PANHANDLE EASTERN PIPE LINE CO.	6	2.10	KS	120,494	57,378
80-284	TEXAS GAS TRANSMISSION CORP.	6	0.67	KY	399,000	595,522
79-371	"	8	1.35	LA	270,734	200,544
77-641	NATURAL GAS PIPELINE CO. OF AMERICA	10	0.35	TX	60,001	171,431
78-432	ANR STORAGE CO.	12	1.00	MI	474,156	474,156
"	"	12	0.50	MI	450,641	901,282
80-82	MICH WISC, TETCO, AND TRANSCO	12	0.30	LA	70,620	235,400
80-158	TEXAS GAS TRANSMISSION CORP.	12	0.33	LA	201,066	609,291

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1978

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<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST PER MILE</u>
<u>OFFSHORE PIPELINE</u>						
77-348	COLUMBIA GULF, NORTHERN, AND TENNECO	12	1.68	LA	\$ 2,747,030	\$ 1,635,137
75-359	COLUMBIA GULF AND NORTHERN	16	0.53	LA	3,749,502	7,074,532

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1979

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<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>AVG. COST PER MILE</u>
<u>OFFSHORE PIPELINE</u>						
79-103	UNITED GAS PIPE LINE CO.	12	2.40	TX	\$ 1,997,605	\$ 832,335
77-526	"	12	0.53	TX	2,434,043	4,592,534

PIPELINE CONSTRUCTION PROJECTS
UNDER 3 MILES (EXCLUDES MIXED DIAMETER PIPELINE)
CONSTRUCTION ENDING IN 1980

Table J-2
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DOCKET NO. (CP)	<u>APPLICANT</u>	<u>OFFSHORE PIPELINE</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST PER MILE</u>
80-184	SOUTHERN NATURAL GAS CO.		3	0.11	LA	\$ 457,337	\$ 4,157,609
"	"		6	1.80	LA	857,813	476,563
80-82	MICH WISC, TETCO, AND TRANSCO		8	1.10	LA	1,935,538	1,759,580
"	"		10	2.30	LA	1,943,211	844,874
79-502	TRANSCONTINENTAL GAS PIPE LINE CORP.		10	0.72	TX	2,427,272	3,371,211
75-19	TRUNKLINE GAS CO.		10	1.90	LA	949,772	499,880
79-191	TRANSCONTINENTAL GAS PIPE LINE CORP.		12	2.50	TX	2,597,385	1,038,954
80-257	SOUTHERN AND FLA GAS		16	0.46	LA	4,089,813	8,890,898
79-405	TENNESSEE GAS PIPELINE CO. (TENNECO)		16	0.70	LA	2,408,670	3,440,957
"	"		16	0.30	LA	1,748,180	5,827,267

PIPELINE CONSTRUCTION PROJECTS
MIXED DIAMETER PIPELINE 3 MILES AND OVER

<u>DOCKET NO. (CP)</u>	<u>APPLICANT</u>	<u>DIAM. OF PIPE IN INCHES</u>	<u>MILES CONSTRUCTED</u>	<u>STATES TRAVESED</u>	<u>TOTAL COST</u>	<u>Avg. COST per mile</u>
<u>CONSTRUCTION ENDING IN 1978</u>						
<u>ONSHORE LATERAL PIPELINE</u>						
77-306	CITIES SERVICE GAS CO.	4, 6, 16	3.94	KS, OK	\$ 513,628	\$ 130,362
<u>CONSTRUCTION ENDING IN 1979</u>						
<u>ONSHORE LATERAL PIPELINE</u>						
77-282	COLUMBIA GAS TRANSMISSION CORP.	4, 6	3.50	WV	509,507	145,573
<u>ONSHORE TRANSMISSION PIPELINE</u>						
80-545	MOUNTAIN FUEL SUPPLY CO. 1/	20	4.08	WY	869,045	213,001
<u>ONSHORE LATERAL PIPELINE</u>						
77-383	PANHANDLE EASTERN PIPE LINE CO.	4, 10	11.32	WY	1,540,333	136,072
77-619	"	4 THRU 10	8.20	TX	646,693	78,865
"	"	4 THRU 6	3.10	OK	176,884	57,059
79-355	"	4, 6, 8	7.93	KS	706,729	89,121
79-356	"	4, 6, 8	30.70	OK	2,634,877	85,827
80-418	TRANSCONTINENTAL GAS PIPE LINE CORP.	4, 6	6.75	TX	764,110	113,201
78-72	TRUNKLINE GAS CO.	4, 6, 8, 10, 12,	18,24	LA	7,034,587	278,047

1/ INDIVIDUAL COST BREAKDOWN WAS NOT OBTAINABLE.

Table J-3
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PIPELINE CONSTRUCTION PROJECTS
MIXED DIAMETER PIPELINE UNDER 3 MILES

DOCKET NO. (CP)	APPLICANT	DIAM. OF PIPE IN INCHES	MILES CONSTRUCTED	STATES TRAVESED	TOTAL COST	Avg. Cost Per Mile
						CONSTRUCTION ENDING IN 1979
<u>ONSHORE LATERAL PIPELINE</u>						
77-282	COLUMBIA GAS TRANSMISSION CORP.	4, 6, 8 4, 6	2.20 0.40	WV WV	\$ 431, 883 93, 862	\$ 196, 310 234, 655
"	"					
<u>CONSTRUCTION ENDING IN 1980</u>						
<u>ONSHORE LATERAL PIPELINE</u>						
79-190	CONSOLIDATED GAS SUPPLY CORP.	6, 8, 12, 14, 16	0.12	PA	289, 724	2,414, 367
80-411	TRANSCONTINENTAL GAS PIPE LINE CORP.	1/ 6	0.32	TX	39, 893	124, 666
80-415	"	4 TO 6	2.00	TX	141, 236	70, 618

L/ INDIVIDUAL COST BREAKDOWN WAS NOT OBTAINABLE.

NEW TRANSMISSION COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1978

DOCKET NUMBER (CP) AND APPLICANT

78-238

DESCRIPTIVE DATA

NAME OF COMPRESSOR STATION
LOCATION
HORSEPOWER/UNIT
NUMBER OF UNITS
TOTAL HORSEPOWER

COST DATA

MATERIALS

TOTAL MATERIALS
MATERIAL % OF THE TOTAL \$
MATERIAL AVG. COST PER HORSEPOWER

ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY

TOTAL ENGINEERING ***
ENGINEERING ... % OF THE TOTAL \$
ENGINEERING ... AVG. COST PER HORSEPOWER

LABOR

TOTAL LABOR
LABOR % OF THE TOTAL \$
LABOR AVG. COST PER HORSEPOWER

MISCELLANEOUS

INTEREST DURING CONSTRUCTION
OVERHEAD
OTHER MISCELLANEOUS 1/
TOTAL MISCELLANEOUS
MISCELLANEOUS % OF THE TOTAL \$
MISCELLANEOUS AVG. COST PER HORSEPOWER

TOTAL COST

TOTAL COST
TOTAL AVG. COST PER HORSEPOWER

\$ 181,870
\$ 219
\$ 5,000
\$ 6

\$ 85,120
\$ 102

\$ 27,250
\$ 33

\$ 299,240
\$ 360

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW TRANSMISSION COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1980

Table K-1
Sheet 2 of 3
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	DOCKET NUMBER (CP) AND APPLICANT		
	80-76	79-45	NGPL
DESCRIPTIVE DATA			
NAME OF COMPRESSOR STATION	MORGAN CREEK COMP.	STA.	COMP. STA. NO. 114
LOCATION	DAWSON CO., MT	WASHINGTON CO., CO	WASHINGTON CO., CO
HORSEPOWER/UNIT	800	1,350	1,350
NUMBER OF UNITS	2	3	3
TOTAL HORSEPOWER	1,600	4,050	
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$ 1,012,514	2,506,462	
MATERIAL % OF THE TOTAL \$	71.5%	67.3	
MATERIAL AVG. COST PER HORSEPOWER	\$ 633	619	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ --	110,257	
ENGINEERING ... % OF THE TOTAL \$	% --	3.0	
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ --	27	
LABOR			
TOTAL LABOR	\$ 309,013	945,647	
LABOR % OF THE TOTAL \$	21.8%	25.4	
LABOR AVG. COST PER HORSEPOWER	\$ 193	234	
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 25,716	123,736	
OVERHEAD	\$ 63,674	2,250	
OTHER MISCELLANEOUS 1/	\$ 5,450	35,780	
TOTAL MISCELLANEOUS 1/	\$ 94,840	161,766	
MISCELLANEOUS % OF THE TOTAL \$	6.7%	4.3	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 59	40	
TOTAL COST			
TOTAL COST	\$ 1,416,367	3,724,132	
TOTAL AVG. COST PER HORSEPOWER	\$ 885	920	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1980

DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT
NAME OF COMPRESSOR STATION	LOCATION	TEXAS GAS
EUNICE COMP. STA.	ACADIA PAR., LA	
2,250	2,250	
1	1	
2,250	2,250	
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 1,670,480	54.6%
MATERIAL % OF THE TOTAL \$	\$ 743	
MATERIAL AVG. COST PER HORSEPOWER		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING ...	\$ 116,183	3.8%
ENGINEERING ... % OF THE TOTAL \$	\$ 52	
ENGINEERING ... AVG. COST PER HORSEPOWER		
LABOR	\$ 1,103,050	36.0%
TOTAL LABOR	\$ 490	
LABOR % OF THE TOTAL \$		
LABOR AVG. COST PER HORSEPOWER		
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	\$ 84,128	
OVERHEAD	\$ 87,676	
OTHER MISCELLANEOUS 1/	\$ -	
TOTAL MISCELLANEOUS % OF THE TOTAL \$	\$ 171,804	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 76	5.6%
TOTAL COST	\$ 3,061,517	
TOTAL COST	\$ 1,361	
TOTAL AVG. COST PER HORSEPOWER		

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW TRANSMISSION COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1977

DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT
NAME OF COMPRESSOR STATION		GRAND CHENIER COMP. STA.
LOCATION		CAMERON PAR. LA
HORSEPOWER/UNIT		27,550
NUMBER OF UNITS		1
TOTAL HORSEPOWER		27,550
COST DATA		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$	5,294,469
MATERIAL % OF THE TOTAL \$		48.0%
MATERIAL AVG. COST PER HORSEPOWER	\$	192
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ***	\$	---
ENGINEERING *** % OF THE TOTAL \$		---
ENGINEERING ... AVG. COST PER HORSEPOWER	\$	---
<u>LABOR</u>		
TOTAL LABOR	\$	4,836,144
LABOR % OF THE TOTAL \$		43.8%
LABOR AVG. COST PER HORSEPOWER	\$	176
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$	904,659
OVERHEAD	\$	---
OTHER MISCELLANEOUS 1/	\$	3,847
TOTAL MISCELLANEOUS	\$	908,506
MISCELLANEOUS % OF THE TOTAL \$		8.2%
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	33
<u>TOTAL COST</u>		
TOTAL COST	\$	11,039,119
TOTAL AVG. COST PER HORSEPOWER	\$	401

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW TRANSMISSION COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1980

Table X-2
Sheet 2 of 5
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		DOCKET NUMBER (CP) AND APPLICANT	
		80-172	79-104
		GREAT LAKES	MIDWESTERN
NAME OF COMPRESSOR STATION	BREVORT COMP. STA.	STA. 2113	TRUNKLINE
LOCATION	MACKINAC CO., MI	SULLIVAN CO., IN	
HORSEPOWER/UNIT	1,100	9,100	COMP. STA. 315
NUMBER OF UNITS	2	1	ST. MARY'S PAR., LA
TOTAL HORSEPOWER	2,200	9,100	3,000
			3
			9,000
<u>COST DATA</u>			
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 2,368,613	4,033,298	6,430,164
MATERIAL % OF THE TOTAL \$	63.4%	46.4	47.5
MATERIAL AVG. COST PER HORSEPOWER	\$ 1,077	44.3	715
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$ 767,594	320,931	2,324,370
ENGINEERING *** % OF THE TOTAL \$	20.5%	3.7	17.2
ENGINEERING *** AVG. COST PER HORSEPOWER	\$ 349	3.5	258
<u>LABOR</u>			
TOTAL LABOR	\$ 496,174	3,271,500	3,912,553
LABOR % OF THE TOTAL \$	13.3%	37.6	28.9
LABOR AVG. COST PER HORSEPOWER	\$ 225	36.0	43.5
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 89,954	155,765	665,612
OVERHEAD	\$ 14,183	510,916	—
OTHER MISCELLANEOUS 1/	\$ —	401,276	200,281
TOTAL MISCELLANEOUS	\$ 104,137	1,067,957	865,893
MISCELLANEOUS % OF THE TOTAL \$	2.8%	112.3	6.4
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 47	117	96
<u>TOTAL COST</u>			
TOTAL COST	\$ 3,736,518	8,693,686	13,532,980
TOTAL AVG. COST PER HORSEPOWER	\$ 1,698	955	1,504

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1980

Table K-2
Sheet 3 of 5
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COST DATA	CIG	DOCKET NUMBER (CP) AND APPLICANT		MIDWESTERN 79-104 79-104 MIDWESTERN
		80-40	79-104	
DESCRIPTIVE DATA				
NAME OF COMPRESSOR STATION				
LOCATION				
HORSEPOWER/UNIT				
NUMBER OF UNITS				
TOTAL HORSEPOWER				
MATERIALS				
TOTAL MATERIALS	\$ 1,207,951	1,029,867	1,033,872	
MATERIAL % OF THE TOTAL \$	67.5%	63.9	63.1	
MATERIAL AVG. COST PER HORSEPOWER	\$ 315	291	292	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY				
TOTAL ENGINEERING ***	\$ 60,180	182,205	75,004	
ENGINEERING *** % OF THE TOTAL \$	3.3%	11.3	4.6	
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 16	51	21	
LABOR				
TOTAL LABOR	\$ 409,448	249,402	383,328	
LABOR % OF THE TOTAL \$	22.9%	15.5	23.4	
LABOR AVG. COST PER HORSEPOWER	\$ 107	71	108	
MISCELLANEOUS				
INTEREST DURING CONSTRUCTION	\$ 24,675	28,900	29,390	
OVERHEAD	\$ 88,001	94,793	96,399	
OTHER MISCELLANEOUS 1/	\$ --	26,379	21,143	
TOTAL MISCELLANEOUS % OF THE TOTAL \$	\$ 112,676	150,072	146,932	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 29	42	42	
TOTAL COST	\$ 1,790,255	1,611,546	1,639,136	
TOTAL COST	\$ 467	455	463	
TOTAL AVG. COST PER HORSEPOWER				

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1980

Table K-2
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DESCRIPTIVE DATA	DOCKET NUMBER (CP) AND APPLICANT	
	79-104 MIDWESTERN	75-37 MOUNTAIN FUEL
NAME OF COMPRESSOR STATION	KANDA COMP. STA., WY	COMP. STA. NO. 120
LOCATION	SWEETWATER CO., WY	HENRY CO., GA
HORSEPOWER/UNIT	1,100	3,670
NUMBER OF UNITS	3	1
TOTAL HORSEPOWER	3,300	3,670
<u>COST DATA</u>		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 1,097,988	1,159,669
MATERIAL % OF THE TOTAL \$	63.5%	51.4
MATERIAL AVG. COST PER HORSEPOWER	\$ 310	415
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ***	\$ 112,015	33,146
ENGINEERING *** % OF THE TOTAL \$	6.5%	1.9
ENGINEERING *** AVG. COST PER HORSEPOWER	\$ 32	10
<u>LABOR</u>		
TOTAL LABOR	\$ 316,070	134,639
LABOR % OF THE TOTAL \$	18.3%	8.0
LABOR AVG. COST PER HORSEPOWER	\$ 89	41
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 30,859	---
OVERHEAD	\$ 101,219	153,537
OTHER MISCELLANEOUS 1/	\$ 69,926	131
TOTAL MISCELLANEOUS 1/	\$ 202,004	153,668
MISCELLANEOUS % OF THE TOTAL \$	11.7%	9.1
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 57	46
<u>TOTAL COST</u>		
TOTAL COST	\$ 1,728,077	1,691,217
TOTAL AVG. COST PER HORSEPOWER	\$ 488	512
		2,254,220
		614

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

Table K-2
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ADDITIONS TO TRANSMISSION COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1980

DOCKET NUMBER (CP) AND APPLICANT	80-150
DESCRITIVE DATA	TRANSCO
NAME OF COMPRESSOR STATION	COMP. STA. NO. 130
LOCATION	MADISON CO., GA
HORSEPOWER/UNIT	3,670
NUMBER OF UNITS	1
TOTAL HORSEPOWER	3,670
COST DATA	
<u>MATERIALS</u>	
<u>TOTAL MATERIALS</u>	\$ 1,121,545
MATERIAL % OF THE TOTAL \$	55.7%
MATERIAL AVG. COST PER HORSEPOWER	\$ 306
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>	
<u>TOTAL ENGINEERING</u>	\$ 161,415
ENGINEERING ... % OF THE TOTAL \$	8.0%
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 44
<u>LABOR</u>	
<u>TOTAL LABOR</u>	\$ 503,986
LABOR % OF THE TOTAL \$	25.0%
LABOR AVG. COST PER HORSEPOWER	\$ 137
<u>MISCELLANEOUS</u>	
<u>INTEREST DURING CONSTRUCTION</u>	\$ 71,970
OVERHEAD	\$ 154,201
OTHER MISCELLANEOUS <u>1/</u>	\$ 844
TOTAL MISCELLANEOUS	\$ 227,015
MISCELLANEOUS % OF THE TOTAL \$	11.3%
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 62
<u>TOTAL COST</u>	\$ 2,013,961
TOTAL COST	\$ 549
TOTAL AVG. COST PER HORSEPOWER	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1976

Table L-1
Sheet 1 of 13
Page 153

	DOCKET NUMBER (CP) AND APPLICANT	
	75-167 MICH WISC	75-167 MICH WISC
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION	LOVEDALE STA.	OAKDALE STA.
LOCATION	HARPER CO., OK	MAJOR CO., OK
HORSEPOWER/UNIT	1,200	800
NUMBER OF UNITS	2	2
TOTAL HORSEPOWER	2,400	1,600
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 997,820	572,395
MATERIAL % OF THE TOTAL \$	72.5%	80.3
MATERIAL AVG. COST PER HORSEPOWER	\$ 416	358
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING ***	\$ 58,897	12,938
ENGINEERING *** % OF THE TOTAL \$	4.3%	1.8
ENGINEERING *** AVG. COST PER HORSEPOWER	\$ 24	8
LABOR		
TOTAL LABOR	\$ 251,086	86,588
LABOR % OF THE TOTAL \$	18.2%	12.1
LABOR AVG. COST PER HORSEPOWER	\$ 105	54
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	\$ 31,007	26,406
OVERHEAD	\$ 33,548	11,846
OTHER MISCELLANEOUS 1/	\$ 4,156	2,966
TOTAL MISCELLANEOUS	\$ 68,711	41,218
MISCELLANEOUS % OF THE TOTAL \$	5.0%	5.8
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 29	26
TOTAL COST		
TOTAL COST	\$1,376,514	713,139
TOTAL AVG. COST PER HORSEPOWER	\$ 574	446

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1976

Table L-1
Sheet 2 of 13
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DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT
NAME OF COMPRESSOR STATION		75-167
LOCATION		MICH WISC
HORSEPOWER/UNIT	S.W. CEDARDALE STA. WOODWARD CO., OK	
NUMBER OF UNITS	750	
TOTAL HORSEPOWER	2	
	1,500	
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 588,962	
MATERIAL % OF THE TOTAL \$	71.4%	
MATERIAL AVG. COST PER HORSEPOWER	\$ 392	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING	\$ 41,947	
ENGINEERING % OF THE TOTAL \$	5.1%	
ENGINEERING AVG. COST PER HORSEPOWER	\$ 28	
LABOR		
TOTAL LABOR	\$ 167,787	
LABOR % OF THE TOTAL \$	20.3%	
LABOR AVG. COST PER HORSEPOWER	\$ 112	
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	\$ 7,143	
OVERHEAD	\$ 13,690	
OTHER MISCELLANEOUS 1/	\$ 5,642	
TOTAL MISCELLANEOUS % OF THE TOTAL \$	\$ 26,475	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 18	
TOTAL COST		
TOTAL COST	\$ 825,171	
TOTAL AVG. COST PER HORSEPOWER	\$ 550	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1978

Table L-1
Sheet 3 of 13
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DESCRIPTIVE DATA	DOCKET NUMBER (CP) AND APPLICANT	
	77-662 ARKLA	78-48 ARK OK
NAME OF COMPRESSOR STATION	MARION COMP. STA. CRITTENDEN CO., AR	SPIRO COMP. STA. LEFLORE CO., OK
LOCATION	350	525
HORSEPOWER/UNIT	2	1
NUMBER OF UNITS	2	525
TOTAL HORSEPOWER	700	1,200
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 326,315	113,153
MATERIAL % OF THE TOTAL \$	59.8%	80.9
MATERIAL AVG. COST PER HORSEPOWER	\$ 466	215
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING •••	\$ --	--
ENGINEERING ••• % OF THE TOTAL \$	\$ --	--
ENGINEERING ••• AVG. COST PER HORSEPOWER	\$ --	--
LABOR		
TOTAL LABOR	\$ 139,252	16,354
LABOR % OF THE TOTAL \$	25.5%	11.7
LABOR AVG. COST PER HORSEPOWER	\$ 199	31
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	\$ 16,625	--
OVERHEAD	\$ 50,272	7,934
OTHER MISCELLANEOUS 1/	\$ 13,526	2,353
TOTAL MISCELLANEOUS	\$ 80,423	10,287
MISCELLANEOUS % OF THE TOTAL \$	\$ 14.7%	7.4
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 115	20
TOTAL COST	\$ 545,990	139,794
TOTAL COST	\$ 780	266
TOTAL AVG. COST PER HORSEPOWER		
		1,053,577
		878

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1978

Table L-1
Sheet 4 of 13
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DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT	
NAME OF COMPRESSOR STATION		78-115 77-109	
LOCATION		NORTHERN TETCO	
HORSEPOWER/UNIT	STEVENS CO.	NO. 6 COMP.	STA.
NUMBER OF UNITS	STEVENS CO., KS	2,000	SABINE PASS COMP. STA.
TOTAL HORSEPOWER		2	JEFFERSON CO., TX
		4,000	660
			1
			660
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$ 908,898	62.2%	683,477
MATERIAL % OF THE TOTAL \$			33.6
MATERIAL AVG. COST PER HORSEPOWER	\$ 227		1,036
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING . . .	\$ 133,644	9.2%	--
ENGINEERING . . . % OF THE TOTAL \$			--
ENGINEERING . . . AVG. COST PER HORSEPOWER	\$ 33		--
LABOR	\$ 315,887	21.6%	1,320,289
TOTAL LABOR			64.9
LABOR % OF THE TOTAL \$			2,000
LABOR AVG. COST PER HORSEPOWER	\$ 79		
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 25,488		30,573
OVERHEAD	\$ 59,471		
OTHER MISCELLANEOUS 1/	\$ 17,820		--
TOTAL MISCELLANEOUS 1/	\$ 102,779		30,573
MISCELLANEOUS % OF THE TOTAL \$			1.5
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 26		46
TOTAL COST	\$ 1,461,208		2,034,339
TOTAL COST	\$ 365		3,082
TOTAL AVG. COST PER HORSEPOWER			

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW FIELD COMPRESSOR STATIONS
RECIPROCATING UNITS
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DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT	
		<u>78-537</u>	
		<u>NORTHERN</u>	
NAME OF COMPRESSOR STATION	STA. NO. 40 ST. HELENA	FINNEY CO. NO. 4	
LOCATION	ST. HELENA PAR., LA	FINNEY CO., KS	
HORSEPOWER/UNIT	518	1 AT 1,320; 1 AT 750	
NUMBER OF UNITS	1	2	
TOTAL HORSEPOWER	518	2,070	
<u>COST DATA</u>			
MATERIALS			
TOTAL MATERIALS	\$ 238,858	992,751	
MATERIAL % OF THE TOTAL \$	42.1%	54.1	
MATERIAL AVG.	\$ 461	480	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ 43,680	3,358	
ENGINEERING *** % OF THE TOTAL \$	7.7%	0.2	
ENGINEERING *** AVG. COST PER HORSEPOWER	\$ 84	2	
LABOR			
TOTAL LABOR	\$ 226.587	683,357	
LABOR % OF THE TOTAL \$	39.9%	37.3	
LABOR AVG. COST PER HORSEPOWER	\$ 438	330	
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 15,191	35,586	
OVERHEAD	\$ 13,527	83,033	
OTHER MISCELLANEOUS 1/	\$ 29,813	35,098	
TOTAL MISCELLANEOUS	\$ 58,531	153,717	
MISCELLANEOUS % OF THE TOTAL \$	10.3%	8.4	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 113	74	
TOTAL COST	\$ 567,656	1,833,183	
TOTAL COST	\$ 1,096	886	
TOTAL AVG. COST PER HORSEPOWER			

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

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DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT	
NAME OF COMPRESSOR STATION		77-383	
LOCATION	KANSAS-NEBRASKA	PANHANDLE	PANHANDLE
HORSEPOWER/UNIT	VANDALIA FLD. COMP. STA. VALLEY CO., MT	STORM COMP. STA. SWEETWATER CO., WY	LITTLE MULE COMP. STA. BARBER CO., KS
NUMBER OF UNITS	140	750	630
TOTAL HORSEPOWER	1	1	1
COST DATA	140	750	630
MATERIALS			
TOTAL MATERIALS	\$ 104,500	442,826	304,699
MATERIAL % OF THE TOTAL \$	71.7%	44.3	73.0
MATERIAL AVG. COST PER HORSEPOWER	\$ 746	591	484
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ...	\$ 12,656	157,767	37,079
ENGINEERING ... % OF THE TOTAL \$	8.7%	15.8	8.9
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 90	210	59
LABOR			
TOTAL LABOR	\$ 12,409	334,651	53,605
LABOR % OF THE TOTAL \$	8.5%	33.4	12.9
LABOR AVG. COST PER HORSEPOWER	\$ 89	446	85
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 2,358	22,820	9,792
OVERHEAD	\$ 6,240	42,237	12,012
OTHER MISCELLANEOUS 1/	\$ 7,500	--	--
TOTAL MISCELLANEOUS	\$ 16,098	65,057	21,804
MISCELLANEOUS % OF THE TOTAL \$	11.1%	6.5	5.2
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 115	87	34
TOTAL COST	\$ 145,663	1,000,301	417,187
TOTAL COST PER HORSEPOWER	\$ 1,040	1,334	662

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

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		DOCKET NUMBER (CP) AND APPLICANT	
		79-279	79-279
DESCRIPTIVE DATA		PANHANDLE	PANHANDLE
NAME OF COMPRESSOR STATION			
LOCATION	MIRE'S COMP. STA.		CASHION COMP. STA.
HORSEPOWER/UNIT	TEXAS CO., OK	KINGFISHER CO., OK	KINGFISHER CO., OK
NUMBER OF UNITS	565	1,674	1,674
TOTAL HORSEPOWER	1	2	2
	565	3,348	3,348
<u>COST DATA</u>			
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 254,814	2,098,473	2,283,821
MATERIAL % OF THE TOTAL \$	71.4%	63.5	65.1
MATERIAL AVG.	\$ 451	627	682
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$ 56,912	313,978	266,876
ENGINEERING ... % OF THE TOTAL \$	16.0%	9.5	7.6
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 101	94	79
<u>LABOR</u>			
TOTAL LABOR	\$ 25,400	593,352	672,184
LABOR % OF THE TOTAL \$	7.1%	17.9	19.1
LABOR AVG. COST PER HORSEPOWER	\$ 45	177	201
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 8,457	214,340	227,331
OVERHEAD	\$ 11,164	77,489	54,826
OTHER MISCELLANEOUS 1/	\$ --	10,000	5,000
TOTAL MISCELLANEOUS	\$ 19,621	301,829	287,157
MISCELLANEOUS % OF THE TOTAL \$	5.5%	9.1	8.2
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 34	90	86
<u>TOTAL COST</u>			
TOTAL COST	\$ 356,747	3,307,632	3,510,038
TOTAL AVG. COST PER HORSEPOWER	\$ 631	988	1,048

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

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		DOCKET NUMBER (CP) AND APPLICANT	
		79-355 PANHANDLE	79-356 PANHANDLE
DESCRIPTIVE DATA			
NAME OF COMPRESSOR STATION			
LOCATION	SHARON COMP. STA. BARBER CO., KS	EDEN COMP. STA. WOODS CO., OK	WALKER COMP. STA. WOODWARD CO., OK
HORSEPOWER/UNIT	713	718	773
NUMBER OF UNITS	1	2	2
TOTAL HORSEPOWER	713	1,436	1,546
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$ 773,801	971,632	1,332,005
MATERIAL % OF THE TOTAL \$	64.9%	65.5	71.1
MATERIAL AVG. COST PER HORSEPOWER	\$ 1,085	677	861
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ 113,990	168,457	186,506
ENGINEERING ... % OF THE TOTAL \$	9.6%	11.4	10.0
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 160	117	121
LABOR			
TOTAL LABOR	\$ 248,135	261,508	266,547
LABOR % OF THE TOTAL \$	20.8%	17.6	14.2
LABOR AVG. COST PER HORSEPOWER	\$ 348	182	172
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 24,240	40,325	51,129
OVERHEAD	\$ 32,099	41,297	36,565
OTHER MISCELLANEOUS 1/	\$ --	--	--
TOTAL MISCELLANEOUS 1/	\$ 56,339	81,622	87,694
MISCELLANEOUS % OF THE TOTAL \$	4.7%	5.5	4.7
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 79	57	57
TOTAL COST			
TOTAL COST	\$ 1,192,265	1,483,219	1,872,752
TOTAL AVG. COST PER HORSEPOWER	\$ 1,672	1,033	1,211

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

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DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT	
		76-516	
		WESTERN	
NAME OF COMPRESSOR STATION	ANTELOPE RIDGE COMP. STA.		
LOCATION	LEA CO., NM		
HORSEPOWER/UNIT			
NUMBER OF UNITS	280		
TOTAL HORSEPOWER	1		
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$ 119,576		
MATERIAL % OF THE TOTAL \$	79.4%		
MATERIAL AVG. COST PER HORSEPOWER	\$ 427		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ --		
ENGINEERING *** % OF THE TOTAL \$	--		
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ --		
LABOR			
TOTAL LABOR	\$ 22,909		
LABOR % OF THE TOTAL \$	15.2%		
LABOR AVG. COST PER HORSEPOWER	\$ 82		
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ --		
OVERHEAD	\$ --		
OTHER MISCELLANEOUS 1/	\$ 8,125		
TOTAL MISCELLANEOUS % OF THE TOTAL \$	8,125		
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 29		
TOTAL COST			
TOTAL COST	\$ 150,610		
TOTAL AVG. COST PER HORSEPOWER	\$ 538		

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

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DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT	
		75-167 MICH WISC	75-167 MICH WISC
NAME OF COMPRESSOR STATION	CEDARDALE STA.	QUINNLAN STA.	SEILING STA.
LOCATION	WOODWARD CO., OK	WOODWARD CO., OK	WOODWARD CO., OK
HORSEPOWER/UNIT	1,200	600	1,100
NUMBER OF UNITS	3	2	4
TOTAL HORSEPOWER	3,600	1,200	4,400
<u>COST DATA</u>			
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 1,318,069	623,247	1,744,062
MATERIAL % OF THE TOTAL \$	73.7%	77.4	66.2
MATERIAL AVG. COST PER HORSEPOWER	\$ 366	519	396
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$ 94,741	28,549	107,046
ENGINEERING *** % OF THE TOTAL \$	5.3%	3.5	4.1
ENGINEERING *** AVG. COST PER HORSEPOWER	\$ 26	24	24
<u>LABOR</u>			
TOTAL LABOR	\$ 317,176	101,220	657,570
LABOR % OF THE TOTAL \$	17.7%	12.6	24.9
LABOR AVG. COST PER HORSEPOWER	\$ 88	84	150
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 15,320	29,221	59,527
OVERHEAD	\$ 43,697	13,619	64,458
OTHER MISCELLANEOUS 1/	\$ 620	9,779	1,798
TOTAL MISCELLANEOUS	\$ 59,637	52,619	125,783
MISCELLANEOUS % OF THE TOTAL \$	3.3%	6.5	4.8
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 17	44	29
<u>TOTAL COST</u>			
TOTAL COST	\$ 1,789,623	805,635	2,634,461
TOTAL AVG. COST PER HORSEPOWER	\$ 497	671	599

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

ADDITIONS TO FIELD COMPRESSOR STATIONS
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		DOCKET NUMBER (CP) AND APPLICANT	
		78-397	78-397
DESCRIPTIVE DATA		NORTHWEST	
NAME OF COMPRESSOR STATION	FOUNDATION CREEK COMP. STA.	N. DOUGLAS CREEK COMP. STA.	
LOCATION	RIO BLANCO CO., CO	RIO BLANCO CO., CO	
HORSEPOWER/UNIT	3,730	1,650	
NUMBER OF UNITS	1	1	
TOTAL HORSEPOWER	3,730	1,650	
<u>COST DATA</u>			
MATERIALS	\$ 1,781,596	\$ 1,198,732	
TOTAL MATERIALS	59.5%	55.6	
MATERIAL % OF THE TOTAL \$			
MATERIAL AVG. COST PER HORSEPOWER	\$ 478	\$ 727	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ...	\$ --	\$ --	--
ENGINEERING ... % OF THE TOTAL \$			
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ --	\$ --	--
LABOR	\$ 848,807	\$ 710,204	
TOTAL LABOR	28.4%	32.9	
LABOR % OF THE TOTAL \$			
LABOR AVG. COST PER HORSEPOWER	\$ 228	\$ 430	
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ --	\$ --	--
OVERHEAD	\$ 363,296	\$ 247,763	
OTHER MISCELLANEOUS 1/	\$ --	\$ --	
TOTAL MISCELLANEOUS	\$ 363,296	\$ 247,763	
MISCELLANEOUS % OF THE TOTAL \$	12.1%	11.5	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 97	\$ 150	
TOTAL COST			
TOTAL COST	\$ 2,993,699	\$ 2,156,699	
TOTAL AVG. COST PER HORSEPOWER	\$ 803	\$ 1,307	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

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DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT	
NAME OF COMPRESSOR STATION		72-195	77-619
LOCATION		PANHANDLE	
HORSEPOWER/UNIT	RABBIT MOUNTAIN COMP. STA. RIO BLANCO CO., CO	BLAIR COMP. STA. CARSON CO., TX	DEER COMP. STA. CARSON CO., TX
NUMBER OF UNITS	600	696	697
TOTAL HORSEPOWER	1	2	6
<u>COST DATA</u>			
MATERIALS	\$ 324,251	577,419	1,953,019
TOTAL MATERIALS	78.4%	83.4	85.2
MATERIAL % OF THE TOTAL \$		415	467
MATERIAL AVG. COST PER HORSEPOWER	\$ 541		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ 2,636	31,523	83,387
ENGINEERING ... % OF THE TOTAL \$	0.6%	4.5	3.6
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 4	23	20
LABOR	\$ 41,305	63,468	177,075
TOTAL LABOR	10.0%	9.2	7.7
LABOR % OF THE TOTAL \$		46	42
LABOR AVG. COST PER HORSEPOWER	\$ 69		
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ --	16,469	53,857
OVERHEAD	\$ 36,584	3,814	25,584
OTHER MISCELLANEOUS 1/	\$ 8,413	--	--
TOTAL MISCELLANEOUS	\$ 44,997	20,283	79,441
MISCELLANEOUS % OF THE TOTAL \$	11.0%	2.9	3.5
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 75	14	19
TOTAL COST	\$ 413,189	692,693	2,292,922
TOTAL COST	\$ 689	498	548
TOTAL AVG. COST PER HORSEPOWER			

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

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DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT	
		77-619	
		PANHANDLE	
NAME OF COMPRESSOR STATION	MASTERSON COMP. STA.	TUMBLEWEED COMP. STA.	
LOCATION	MOORE CO., TX	CARSON CO., TX	
HORSEPOWER/UNIT			690
NUMBER OF UNITS	606	3	2
TOTAL HORSEPOWER	1,818	1,380	
<u>COST DATA</u>			
MATERIALS			
TOTAL MATERIALS	\$ 926,874	817,549	
MATERIAL % OF THE TOTAL \$	84.7%	81.6	
MATERIAL AVG. COST PER HORSEPOWER	\$ 510	593	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING ***	\$ 35,134	37,387	
ENGINEERING *** % OF THE TOTAL \$	3.2%	3.7	
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 19	27	
LABOR			
TOTAL LABOR	\$ 93,480	120,608	
LABOR % OF THE TOTAL \$	8.5%	12.1	
LABOR AVG. COST PER HORSEPOWER	\$ 51	87	
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 25,816	23,590	
OVERHEAD	\$ 13,523	2,848	
OTHER MISCELLANEOUS 1/	\$ --	--	
TOTAL MISCELLANEOUS % OF THE TOTAL \$	\$ 39,339	26,438	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 22	2.6	
TOTAL COST			
TOTAL COST	\$ 1,094,827	1,001,982	
TOTAL AVG. COST PER HORSEPOWER	\$ 602	726	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW FIELD COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1976

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DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT	
		75-167 MICH WISC	75-167 MICH WISC
NAME OF COMPRESSOR STATION		STA. A BEAVER CO., OK	STA. B BEAVER CO., OK
LOCATION		800	600
HORSEPOWER/UNIT		1	1
NUMBER OF UNITS			
TOTAL HORSEPOWER		800	600
<u>COST DATA</u>			
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 421,339	395,327	545,540
MATERIAL % OF THE TOTAL \$	72.1%	72.0	71.6
MATERIAL AVG. COST PER HORSEPOWER	\$ 527	659	455
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$ 22,704	21,249	29,425
ENGINEERING *** % OF THE TOTAL \$	3.9%	3.9	3.9
ENGINEERING *** AVG. COST PER HORSEPOWER	\$ 28	35	24
<u>LABOR</u>			
TOTAL LABOR	\$ 110,879	104,033	143,563
LABOR % OF THE TOTAL \$	19.0%	18.9	18.8
LABOR AVG. COST PER HORSEPOWER	\$ 139	173	120
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 12,420	11,880	16,738
OVERHEAD	\$ 13,579	12,988	18,302
OTHER MISCELLANEOUS 1/	\$ 3,074	3,805	8,040
TOTAL MISCELLANEOUS	\$ 29,073	28,673	43,080
MISCELLANEOUS % OF THE TOTAL \$	5.0%	5.2	5.7
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 36	48	36
<u>TOTAL COST</u>			
TOTAL COST	\$ 583,995	549,282	761,608
TOTAL AVG. COST PER HORSEPOWER	\$ 730	915	635

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

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NEW FIELD COMPRESSOR STATIONS TURBINE DRIVEN CENTRIFUGAL UNITS CONSTRUCTION ENDING IN 1976		
DOCKET NUMBER (CP) AND APPLICANT		
<u>75-167</u>		
DESCRIPTIVE DATA		
NAME OF COMPRESSOR STATION		
LOCATION	STA. D	
HORSEPOWER/UNIT	HARPER CO., OK	
NUMBER OF UNITS	800	
TOTAL HORSEPOWER	1	
	800	
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 424,576	
MATERIAL % OF THE TOTAL \$	71.6%	
MATERIAL COST PER HORSEPOWER	\$ 531	
MATERIAL AVG.		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING	\$ 22,854	
ENGINEERING % OF THE TOTAL \$	3.8%	
ENGINEERING AVG. COST PER HORSEPOWER	\$ 28	
LABOR		
TOTAL LABOR	\$ 111,731	
LABOR % OF THE TOTAL \$	18.8%	
LABOR COST PER HORSEPOWER	\$ 140	
LABOR AVG.		
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION		
OVERHEAD	\$ 12,960	
OTHER MISCELLANEOUS <u>1/</u>	\$ 14,169	
TOTAL MISCELLANEOUS	\$ 7,123	
MISCELLANEOUS % OF THE TOTAL \$	\$ 34,252	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 43	5.8%
TOTAL COST	\$ 593,413	
TOTAL COST	\$ 742	
TOTAL AVG. COST PER HORSEPOWER		

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

ADDITIONS TO FIELD COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1976

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DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT
NAME OF COMPRESSOR STATION	LOCATION	75-167
HORSEPOWER/UNIT	LAVERNIE STA. HARPER CO., OK	
NUMBER OF UNITS	12,000	
TOTAL HORSEPOWER	1	
<u>COST DATA</u>		
	<u>MATERIALS</u>	
TOTAL MATERIALS		\$ 2,922,526
MATERIAL % OF THE TOTAL \$		57.1%
MATERIAL AVG. COST PER HORSEPOWER		\$ 244
	<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>	
TOTAL ENGINEERING ***		\$ 56,796
ENGINEERING : . . % OF THE TOTAL \$		1.1%
ENGINEERING . . . AVG. COST PER HORSEPOWER		\$ 5
	<u>LABOR</u>	
TOTAL LABOR		\$ 1,836,411
LABOR % OF THE TOTAL \$		35.9%
LABOR AVG. COST PER HORSEPOWER		\$ 153
	<u>MISCELLANEOUS</u>	
INTEREST DURING CONSTRUCTION		\$ 182,541
OVERHEAD		\$ 122,151
OTHER MISCELLANEOUS 1/		\$ --
TOTAL MISCELLANEOUS		\$ 304,692
MISCELLANEOUS % OF THE TOTAL \$		5.9%
MISCELLANEOUS AVG. COST PER HORSEPOWER		\$ 25
	<u>TOTAL COST</u>	
TOTAL COST		\$ 5,120,425
TOTAL AVG. COST PER HORSEPOWER		\$ 427

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

ADDITIONS TO FIELD COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1979

DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT	
		78-436	
		TENNECO & UNITED	
NAME OF COMPRESSOR STATION		STA. 523R	
LOCATION		TERREBONNE PAR., LA	
HORSEPOWER/UNIT	3,594		
NUMBER OF UNITS	1		
TOTAL HORSEPOWER	3,594		
<u>COST DATA</u>			
MATERIALS			
TOTAL MATERIALS	\$ 1,226,900		
MATERIAL % OF THE TOTAL \$	42.1%		
MATERIAL AVG. COST PER HORSEPOWER	\$ 341		
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING . . .	\$ 198,500		
ENGINEERING . . . % OF THE TOTAL \$	6.8%		
ENGINEERING . . . AVG. COST PER HORSEPOWER	\$ 55		
LABOR			
TOTAL LABOR	\$ 1,080,000		
LABOR % OF THE TOTAL \$	37.1%		
LABOR AVG. COST PER HORSEPOWER	\$ 301		
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$ 96,370		
OVERHEAD	\$ 311,456		
OTHER MISCELLANEOUS 1/	\$ --		
TOTAL MISCELLANEOUS % OF THE TOTAL \$	\$ 407,826		
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 114		
TOTAL COST	\$ 2,913,226		
TOTAL COST	\$ 811		
TOTAL AVG. COST PER HORSEPOWER			

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

ADDITIONS TO FIELD COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1980

Table L-2
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		DOCKET NUMBER (CP) AND APPLICANT	
		79-426	79-147
DESCRIPTIVE DATA		CIG	
NAME OF COMPRESSOR STATION	MOCANE COMP. STA.	COMP. STA.	342
LOCATION	BEAVER CO., OK	CAMERON PAR., LA	
HORSEPOWER/UNIT	1,100	3,600	
NUMBER OF UNITS	3	3	
TOTAL HORSEPOWER	3,300	3,600	
<u>COST DATA</u>			
<u>MATERIALS</u>			
TOTAL MATERIALS	\$ 1,343,482	1,248,786	
MATERIAL % OF THE TOTAL \$	67.7%	66.2	
MATERIAL AVG. COST PER HORSEPOWER	\$ 407	347	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ...	\$ 139,549	143,949	
ENGINEERING ... % OF THE TOTAL \$	7.0%	7.6	
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 42	40	
<u>LABOR</u>			
TOTAL LABOR	\$ 331,671	413,013	
LABOR % OF THE TOTAL \$	16.7%	21.9	
LABOR AVG. COST PER HORSEPOWER	\$ 101	115	
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$ 84,703	77,360	
OVERHEAD	\$ 84,885	2,938	
OTHER MISCELLANEOUS 1/	\$ --	--	
TOTAL MISCELLANEOUS	\$ 169,588	80,298	
MISCELLANEOUS % OF THE TOTAL \$	8.6%	4.3	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 51	22	
<u>TOTAL COST</u>			
TOTAL COST	\$ 1,984,290	1,886,046	
TOTAL AVG. COST PER HORSEPOWER	\$ 601	524	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW STORAGE COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1980

Table M-1
Sheet 1 of 2
Page 171

	DOCKET NUMBER (CP) AND APPLICANT	
	78-432	78-432
	ANR STGE	ANR STGE
<u>DESCRIPTIVE DATA</u>		
NAME OF COMPRESSOR STATION	COLD SPRINGS 12 STGE. FLD.	RAPID RIVER 35 STGE. FLD.
LOCATION	KALKASKA CO., MI	KALKASKA CO., MI
HORSEPOWER/UNIT	12,000	7,500
NUMBER OF UNITS	1	1
TOTAL HORSEPOWER	12,000	7,500
<u>COST DATA</u>		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 9,669,204	6,711,595
MATERIAL % OF THE TOTAL \$	53.2%	44.9
MATERIAL AVG. COST PER HORSEPOWER	\$ 806	895
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ***	\$ 1,951,382	1,815,144
ENGINEERING *** % OF THE TOTAL \$	10.7%	12.1
ENGINEERING *** AVG. COST PER HORSEPOWER	\$ 163	242
<u>LABOR</u>		
TOTAL LABOR	\$ 3,918,354	4,203,155
LABOR % OF THE TOTAL \$	21.6%	28.1
LABOR AVG. COST PER HORSEPOWER	\$ 326	560
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 1,924,645	1,641,154
OVERHEAD	\$ 707,631	579,721
OTHER MISCELLANEOUS 1/	\$ --	--
TOTAL MISCELLANEOUS % OF THE TOTAL \$	2,632,276	2,220,875
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 219	296
<u>TOTAL COST</u>		
TOTAL COST	\$ 18,171,216	14,950,769
TOTAL AVG. COST PER HORSEPOWER	\$ 1,514	1,993

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

79-128
CIG

ADDITIONS TO STORAGE COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1980

Table M-1
Sheet 2 of 2
Page 172

DESCRIPTIVE DATA	DOCKET NUMBER (CP) AND APPLICANT	
	79-128 CIG	80-196 TEXAS GAS
NAME OF COMPRESSOR STATION	FLANK COMP, STA. BACA CO., CO	MIDLAND NO. 3 COMP, STA. MUHLENBERG CO., KY
LOCATION	1,600	2,250
HORSEPOWER/UNIT		
NUMBER OF UNITS	1	1
TOTAL HORSEPOWER	1,600	2,250
<u>COST DATA</u>		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 645,200	1,257,791
MATERIAL % OF THE TOTAL \$	79.1%	58.4
MATERIAL AVG. COST PER HORSEPOWER	\$ 403	559
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING ***	\$ 37,517	72,054
ENGINEERING ... % OF THE TOTAL \$	4.6%	3.3
ENGINEERING ... AVG. COST PER HORSEPOWER	\$ 24	32
<u>LABOR</u>		
TOTAL LABOR	\$ 73,602	705,446
LABOR % OF THE TOTAL \$	9.0%	32.7
LABOR AVG. COST PER HORSEPOWER	\$ 46	314
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ 23,903	58,361
OVERHEAD	\$ 35,383	61,732
OTHER MISCELLANEOUS 1/	\$ --	--
TOTAL MISCELLANEOUS 1/	\$ 59,286	120,093
MISCELLANEOUS % OF THE TOTAL \$	7.3%	5.6
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 37	53
<u>TOTAL COST</u>		
TOTAL COST	\$ 815,605	2,155,384
TOTAL AVG.	\$ 510	958

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW STORAGE COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1977

DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT
NAME OF COMPRESSOR STATION		
LOCATION		CLAY BASIN BOOSTER COMP. STA.
HORSEPOWER/UNIT		DAGGETT CO., UT
NUMBER OF UNITS	1 AT 3,830;	1 AT 1,160
TOTAL HORSEPOWER	2	4,990
<u>COST DATA</u>		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 966,914	
MATERIAL % OF THE TOTAL \$	75.0%	
MATERIAL AVG. COST PER HORSEPOWER	\$ 193	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING	\$ --	
ENGINEERING % OF THE TOTAL \$	--	%
ENGINEERING AVG. COST PER HORSEPOWER	\$ --	
<u>LABOR</u>		
TOTAL LABOR	\$ 193,741	
LABOR % OF THE TOTAL \$	15.0%	
LABOR AVG. COST PER HORSEPOWER	\$ 39	
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ --	
OVERHEAD	\$ --	
OTHER MISCELLANEOUS 1/	\$ 128,949	
TOTAL MISCELLANEOUS	\$ 128,949	
MISCELLANEOUS % OF THE TOTAL \$	10.0%	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 26	
<u>TOTAL COST</u>		
TOTAL COST	\$ 1,289,604	
TOTAL AVG. COST PER HORSEPOWER	\$ 258	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW OFFSHORE COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1978

DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT
		78-244
		MICH WISC
NAME OF COMPRESSOR STATION		
LOCATION	BLK. 291	
HORSEPOWER/UNIT	SHIP SHOAL, LA	
NUMBER OF UNITS	1,000	
TOTAL HORSEPOWER	1	
COST DATA		
MATERIALS		
TOTAL MATERIALS	\$ 442,930	
MATERIAL % OF THE TOTAL \$	46.8%	
MATERIAL AVG. COST PER HORSEPOWER	\$ 443	
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY		
TOTAL ENGINEERING . . .	\$ --	
ENGINEERING . . . % OF THE TOTAL \$	--	
ENGINEERING . . . AVG. COST PER HORSEPOWER	\$ --	%
LABOR		
TOTAL LABOR	\$ 440,756	
LABOR % OF THE TOTAL \$	46.5%	
LABOR AVG. COST PER HORSEPOWER	\$ 441	
MISCELLANEOUS		
INTEREST DURING CONSTRUCTION	\$ 45,332	
OVERHEAD	\$ 17,751	
OTHER MISCELLANEOUS 1/	\$ --	
TOTAL MISCELLANEOUS	\$ 63,083	
MISCELLANEOUS % OF THE TOTAL \$	6.7%	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 63	
TOTAL COST		
TOTAL COST	\$ 946,769	
TOTAL AVG. COST PER HORSEPOWER	\$ 947	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW OFFSHORE COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1979

DESCRIPTIVE DATA		DOCKET NUMBER (CP) AND APPLICANT	
		77-567	
NAME OF COMPRESSOR STATION		MICH WISC	
LOCATION		BLK. 137	
HORSEPOWER/UNIT		S. MARSH ISL., LA	
NUMBER OF UNITS		1,000	
TOTAL HORSEPOWER		1	
<u>COST DATA</u>			
<u>MATERIALS</u>			
TOTAL MATERIALS	\$	1,276,627	
MATERIAL % OF THE TOTAL \$		30.5%	
MATERIAL AVG. COST PER HORSEPOWER	\$	1,277	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>			
TOTAL ENGINEERING ***	\$	--	%
ENGINEERING *** % OF THE TOTAL \$		--	
ENGINEERING *** AVG. COST PER HORSEPOWER	\$	--	
<u>LABOR</u>			
TOTAL LABOR	\$	2,646,627	
LABOR % OF THE TOTAL \$		63.1%	
LABOR AVG. COST PER HORSEPOWER	\$	2,647	
<u>MISCELLANEOUS</u>			
INTEREST DURING CONSTRUCTION	\$	175,103	
OVERHEAD	\$	92,144	
OTHER MISCELLANEOUS 1/	\$	--	
TOTAL MISCELLANEOUS	\$	267,247	
MISCELLANEOUS % OF THE TOTAL \$		6.4%	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	267	
<u>TOTAL COST</u>			
TOTAL COST	\$	4,190,501	
TOTAL AVG. COST PER HORSEPOWER	\$	4,191	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

NEW OFFSHORE COMPRESSOR STATIONS
RECIPROCATING UNITS
CONSTRUCTION ENDING IN 1980

Table N-1
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<u>DESCRIPTIVE DATA</u>		<u>DOCKET NUMBER (CP) AND APPLICANT</u>
<u>NAME OF COMPRESSOR STATION</u>	<u>MICH WISC, TETCO, AND TRANSCO</u>	<u>80-82</u>
LOCATION	BLK. 504 W. CAMERON, LA	
HORSEPOWER/UNIT	600	
NUMBER OF UNITS	2	
TOTAL HORSEPOWER	1,200	
<u>COST DATA</u>		
<u>MATERIALS</u>		
TOTAL MATERIALS	\$ 711,502	
MATERIAL % OF THE TOTAL \$	80 . 0 %	
MATERIAL AVG. COST PER HORSEPOWER	\$ 593	
<u>ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>		
TOTAL ENGINEERING	\$ 73,920	
ENGINEERING % OF THE TOTAL \$	8 . 3 %	
ENGINEERING AVG. COST PER HORSEPOWER	\$ 62	
<u>LABOR</u>		
TOTAL LABOR	\$ 82,180	
LABOR % OF THE TOTAL \$	9 . 3 %	
LABOR AVG. COST PER HORSEPOWER	\$ 68	
<u>MISCELLANEOUS</u>		
INTEREST DURING CONSTRUCTION	\$ --	
OVERHEAD	\$ 21,690	
OTHER MISCELLANEOUS 1/	\$ --	
TOTAL MISCELLANEOUS	\$ --	
MISCELLANEOUS % OF THE TOTAL \$	21,690 . 4 %	
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$ 18	
<u>TOTAL COST</u>		
TOTAL COST	\$ 889,292	
TOTAL AVG. COST PER HORSEPOWER	\$ 741	

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

ADDITIONS TO OFFSHORE COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1978

Table N-2
Sheet 1 of 3
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		DOCKET NUMBER (CP) AND APPLICANT	
		75-262	77-474
		COLUMBIA GULF AND TENNECO	COLUMBIA GULF AND TENNECO
DESCRIPTIVE DATA			
NAME OF COMPRESSOR STATION			
LOCATION		BLK. 245	BLK. 245
HORSEPOWER/UNIT		VERMILION, LA	VERMILION, LA
NUMBER OF UNITS		4,000	4,000
TOTAL HORSEPOWER		1	2
COST DATA			
MATERIALS			
TOTAL MATERIALS	\$	6,686,855	1,885,153
MATERIAL % OF THE TOTAL \$		19.7%	20.6
MATERIAL AVG. COST PER HORSEPOWER	\$	1,672	236
ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY			
TOTAL ENGINEERING *** % OF THE TOTAL \$	\$	6,604,592	356,084
ENGINEERING ... % OF THE TOTAL \$		19.4%	3.9
ENGINEERING ... AVG. COST PER HORSEPOWER	\$	1,651	44
LABOR			
TOTAL LABOR	\$	17,599,638	5,982,603
LABOR % OF THE TOTAL \$		51.8%	65.5
LABOR AVG. COST PER HORSEPOWER	\$	4,400	748
MISCELLANEOUS			
INTEREST DURING CONSTRUCTION	\$	1,848,846	502,947
OVERHEAD	\$	1,241,455	405,783
OTHER MISCELLANEOUS 1/	\$	—	—
TOTAL MISCELLANEOUS	\$	3,090,301	908,730
MISCELLANEOUS % OF THE TOTAL \$		9.1%	10.0
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	772	114
TOTAL COST			
TOTAL COST	\$	33,981,386	9,132,570
TOTAL AVG. COST PER HORSEPOWER	\$	8,495	1,142

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

ADDITIONS TO OFFSHORE COMPRESSOR STATIONS
 TURBINE DRIVEN CENTRIFUGAL UNITS
 CONSTRUCTION ENDING IN 1979

Table N-2
 Sheet 2 of 3
 Page 178

DOCKET NUMBER (CP) AND APPLICANT

78-489

COLUMBIA GULF AND TENNECO

DESCRIPTIVE DATA

NAME OF COMPRESSOR STATION
 LOCATION
 HORSEPOWER/UNIT
 NUMBER OF UNITS
 TOTAL HORSEPOWER

COST DATA

MATERIALS

TOTAL MATERIALS	\$	873,561
MATERIAL % OF THE TOTAL \$		59.5%
MATERIAL AVG. COST PER HORSEPOWER	\$	219

ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY

TOTAL ENGINEERING ***	\$	149,247
ENGINEERING ... % OF THE TOTAL \$		10.2%
ENGINEERING ... AVG. COST PER HORSEPOWER	\$	37

LABOR

TOTAL LABOR	\$	264,081
LABOR % OF THE TOTAL \$		18.0%
LABOR AVG. COST PER HORSEPOWER	\$	66

MISCELLANEOUS

INTEREST DURING CONSTRUCTION	\$	101,212
OVERHEAD	\$	79,608
OTHER MISCELLANEOUS 1/	\$	--
TOTAL MISCELLANEOUS % OF THE TOTAL \$		180,820
MISCELLANEOUS AVG. COST PER HORSEPOWER	\$	45

TOTAL COST

TOTAL COST	\$	1,467,709
TOTAL AVG. COST PER HORSEPOWER	\$	367

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

ADDITIONS TO OFFSHORE COMPRESSOR STATIONS
TURBINE DRIVEN CENTRIFUGAL UNITS
CONSTRUCTION ENDING IN 1980

DOCKET NUMBER (CP) AND APPLICANT

	78-219
<u>TRUNKLINE</u>	
<u>DESCRIPTIVE DATA</u>	
<u>NAME OF COMPRESSOR STATION</u>	BLK. 165
<u>LOCATION</u>	S. TIMBALIER, LA
<u>HORSEPOWER/UNIT</u>	3,000
<u>NUMBER OF UNITS</u>	1
<u>TOTAL HORSEPOWER</u>	3,000
<u>COST DATA</u>	
<u> MATERIALS</u>	
<u> TOTAL MATERIALS</u>	\$ 1,438,954
<u> MATERIAL % OF THE TOTAL \$</u>	70,9%
<u> MATERIAL AVG. COST PER HORSEPOWER</u>	\$ 480
<u> ENGINEERING, INSPECTION, SUPERVISION, AND SURVEY</u>	
<u> TOTAL ENGINEERING ***</u>	\$ --
<u> ENGINEERING *** % OF THE TOTAL \$</u>	-- %
<u> ENGINEERING *** AVG. COST PER HORSEPOWER</u>	\$ --
<u> LABOR</u>	
<u> TOTAL LABOR</u>	\$ 503,514
<u> LABOR % OF THE TOTAL \$</u>	24.8%
<u> LABOR AVG. COST PER HORSEPOWER</u>	\$ 168
<u> MISCELLANEOUS</u>	
<u> INTEREST DURING CONSTRUCTION</u>	\$ 87,124
<u> OVERHEAD</u>	\$ --
<u> OTHER MISCELLANEOUS 1/</u>	\$ --
<u> TOTAL MISCELLANEOUS</u>	\$ 87,124
<u> MISCELLANEOUS % OF THE TOTAL \$</u>	4.3%
<u> MISCELLANEOUS AVG. COST PER HORSEPOWER</u>	\$ 29
<u> TOTAL COST</u>	
<u> TOTAL COST</u>	\$ 2,029,592
<u> TOTAL AVG. COST PER HORSEPOWER</u>	\$ 677

1/ CONSISTS OF LAND, RIGHT-OF-WAY, DAMAGES, CONTINGENCIES, AND OTHER COSTS.

